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Economic Research Service

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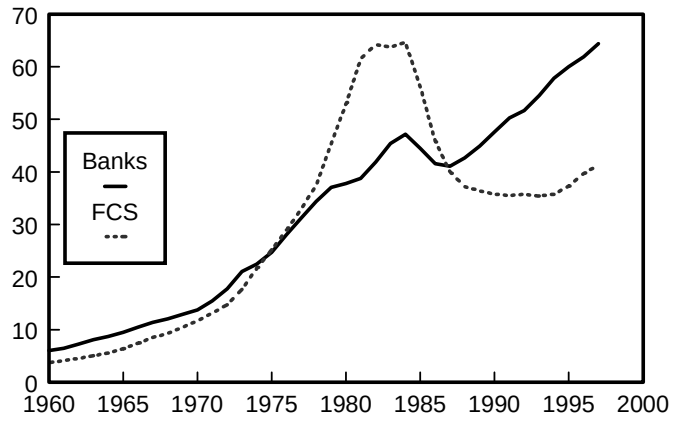
February 1998

Agricultural Income and Finance

Situation and Outlook Report

Total farm business debt held by commercial banks and the Farm Credit System, 1960-97
$ billion



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Summary

Financial institutions serving agriculture continued to experience improved conditions in 1997, and further gains are expected in 1998. Total farm business debt at yearend 1997 is estimated at $162.2 billion, up 3.6 percent from a year earlier, but 16.3 percent below the 1984 peak. Farm loan volume held by both commercial banks and the Farm Credit System (FCS) expanded approximately 4 percent. Commercial banks and the FCS accounted for 45 and 27.5 percent, respectively, of the estimated $5.7-billion increase in farm lending in 1997. Commercial banks have gained farm debt market share for 12 of the past 13 years and now hold 39.7 percent of the market. FCS market share dropped for 12 straight years before increasing during 1995-97 to 25.5 percent at yearend 1997.

Total farm business debt is expected to rise about 3.4 percent in 1998 with nonreal and real estate loans increasing about 3 percent and 4 percent, respectively, about the same as in 1997. Commercial bank loans are projected to increase about 4 percent, compared with an anticipated 3-percent rise in FCS debt. Creditworthy farmers should have adequate access to loans, mostly from the largest suppliers--commercial banks, the FCS, and trade credit (merchants and dealers).

Interest rates on new nonreal estate farm loans increased slightly from the first through the fourth quarters of 1997. Over the same period, interest rates on new farm real estate loans decreased slightly. Interest rates on farm loans made in 1998 are expected to maintain their current levels with little volatility throughout the year.

Agricultural banks had another solid year in 1997. Their annualized mid-1997 rate of return on assets was 1.3 percent, in line with their strong performance in recent years. At 12.4 percent, return on equity remained below 1992's rate of 13.1 percent, but this is not a concern because it reflects high capital levels. Nonperforming loans declined a little to 1.2 percent of total loans. Loan loss provisions are only 0.3 percent of total loans, and agricultural banks in general show no signs of current or future problems. Their strong capital positions will provide a cushion if unexpected problems develop. Only one agricultural bank failed in 1997 and only six failed in the past 5 years.

Average loan-to-deposit ratios for agricultural banks grew to 70.3 percent on September 30, 1997, up from 67.4 percent a year earlier and 59.7 percent 4 years earlier. The loan-to-deposit ratio has increased from a low of 53.5 percent in June 1987 and the previous high of 68.2 percent recorded in September 1968. In the current financial environment, commercial banks can easily access nondeposit sources of funds, and profitable, well-managed banks often have very high loan-to-deposit ratios.

The FCS entered 1998 in strong financial condition. Loan quality and earnings remain strong, and loan volume continues to grow faster than inflation. Volume growth in 1997 was dominated by growth in short- and intermediate term loans, traditionally dominated by commercial banks. Net income fell slightly for the first 9 months of 1997 reflecting increased operating expenses and income taxes. In December 1997, the FCS inaugurated AgSmart, its first nationwide credit product. AgSmart is a point-of-sale trade credit program designed to overcome inconsistent lending products and terms across areas served by different FCS institutions.

The volume of Farm Service Agency (FSA) direct and guaranteed loan program obligations fell nearly 14 percent in fiscal 1997 from a year earlier. Reduced applications for emergency loans, a profitable farm economy, and new lender rules implemented in fiscal 1997 explain much of the decline. Obligations to beginning farmers were up strongly during the year. Fiscal 1998 program funding has been trimmed somewhat from the previous year, but should be sufficient to meet demand in most program areas.

FSA continues to pare back its backlog of delinquent loans. Outstanding delinquent payments declined 16 percent from a year earlier in fiscal 1997, although delinquent payments in the direct loan program still totaled over $2 billion at yearend. Delinquent payments in the guaranteed program inched up again in 1997, but account for less than 2 percent of total outstanding guaranteed loan volume. Outstanding volume in the direct lending program continued to shrink, falling below $10 billion. The year-over-year increase in outstanding guaranteed loan volume was the smallest in 9 years.

Farmer Mac's net profit rose $3.8 million in 1997 to $4.6 million. The increase in net income was largely due to a $4.5-million rise in net interest income rather than from activity in its core business of securitizing farm mortgages. A $700-million increase in its outstanding nonprogram investment portfolio and a shift in the composition of this portfolio to longer-term investments with greater spreads contributed substantially to the higher profits.

Farmer Mac posted modest volume gains in its core business of securitizing farm mortgages, purchasing $231 million in loans and securitizing another $198 million. To boost volume, Farmer Mac launched new loan products and expanded the number of qualified Farmer Mac sellers. Late in the year, Farmer Mac raised $23 million in fresh capital through another public sale of common stock.

Due to the ongoing financial crises in Southeast and East Asia, farm and rural lenders can expect a lower cost of funds, but also a weaker farm sector outlook and slower employment growth in rural areas. USDA's export credits are helping to mitigate the effects on U.S. agricultural exports. The Asia situation is expected to be a short- to medium-term event, with the outlook substantially brightening after 3 - 4 years. So, production credit decisions need to be scrutinized more carefully, but the long-term outlook for farm real estate remains good.

Lenders Benefit from Farm Sector Economic Performance

Following the record set in 1996, farm income estimates for 1997 and forecasts for 1998 are for declines, but these will not be evenly distributed across all U.S. farm operations.

The financial condition of agricultural lenders was stable to improved in 1997, and some additional gains are expected in 1998. But each of the four major institutional farm lender categories--commercial banks, the Farm Credit System (FCS), the Farm Service Agency (FSA), and life insurance companies--faces unique challenges.

The distribution of the farm sector's estimated $162.2 billion farm business debt among lenders on December 31, 1997, is summarized in table 1. Commercial banks account for 39.7 percent of all farm loans, making them the leading agricultural lender, followed by the FCS with 25.5 percent. Individuals and others hold an estimated 23.3 percent.

Lenders Interface with a Generally Profitable Farm Sector

Generally favorable conditions experienced by the farm economy over the past several years have contributed to the strengthening financial condition of farm lenders, but this could begin to change in 1998. The impact of a forecast 8.2-percent decline in net cash income in 1997 will not be evenly distributed over all farm operations. Lenders and producers specializing in the production of wheat, corn, cotton, beef feedlots, and dairy will likely begin to feel additional financial stress in 1998. This can be offset to some degree via diversification into other commodities.

In 1998, farm lenders will be dealing with a farm sector whose economic performance is forecast to be under the 1990-97 average and whose net cash income is expected to be about 5.5 percent below the 1997 forecast. Net cash farm income, which measures sales during the year, is forecast to decline from $59.9 billion in 1996 to $55 billion in 1997, and to $52 billion in 1998. Net farm income, which assesses the net value of calendar-year production, including the portion placed in storage, is forecast to decline from $52.2 billion in 1996 to $46.6 billion in 1997. Net farm income is forecast to decline about 8 percent to $43 billion in 1998.

Cash receipts from crop and livestock enterprises averaged $91.3 and $88.4 billion, respectively, during 1990-96. Lower expected cash receipts from 1996 levels for 1997 and 1998 largely reflect the expectation of smaller crop returns. Crop receipts are forecast to be $108.9 billion for 1997 and $106.7 billion for 1998. Anticipated lower wheat and feed grain prices resulting from abundant supplies and an export slowdown likely will lead to lower overall crop receipts. Livestock receipts are forecast at $92.6 billion for 1997 and $91.3 for 1998. Higher beef cattle prices resulting from a smaller beef herd will be an important positive factor for cow-calf operations, but there will be a decline in hog receipts.

Farm sector assets grew at an annual average rate of 4.1 percent during 1990-97 and are forecast to top $1.13 trillion in 1998. Farm sector equity grew 31.2 percent between 1990 and 1997, to $920.8 billion, and is forecast to increase another 4.7 percent in 1998 to $963.8 billion. Much of this increase can be attributed to the rising value of farmland.

This year is the third in which the 1996 Farm Act will determine the amount of direct government payments farmers receive. The new law specifies the amount of crop payments that participating farmers will receive in each of the 7 fiscal years of its life. Farmers received about $8.9 billion per year (4.5 percent of their annual gross cash income) from direct government payments during 1990-96. Payments are forecast at $7.9 billion in 1997 and $7.4 billion in 1998. The 1997 payment represents a mixture of the old crop program and the production flexibility payments provided under the 1996 Farm Act.

Payments in 1998 will be regulated by the new legislation, and the total will begin to follow the declining levels allocated for production flexibility payments through the year 2002. Although farm sector economic performance has been strong, 1998 performance will vary considerably by region, commodity, and farm size. While farm lenders are dealing with a farm sector whose overall financial health remains strong in 1998, potential sector volatility in the future will require close attention.

Total Farm Debt Continues To Increase

The expected 3- to 4-percent rise in farm business debt in 1998 will be the eighth annual increase in the last 9 years after 5 successive years of net debt retirement. Total farm business debt is anticipated to rise to about $168 billion by the end of 1998, the highest since 1985. The expected increase of $5-6 billion during 1998 will mark the sixth straight year of rising debt and follows an increase of $5.7 billion in 1997.

The 3.6-percent increase in farm debt outstanding in 1997 was the second largest annual gain in outstanding loans since 1981. Since the 1989 low, total farm debt during 1989-97 grew 17.7 percent, while the GDP deflator increased 25.4 percent. But for yearend 1993 to the end of 1997, total farm debt grew 14.2 percent while the GDP deflator increased 9.7 percent. The recent increase in farm debt is important to watch, but not, at this point, a cause for concern.

The farm sector's financial indicators continue to generally show the economic viability that has characterized recent years. Total farm business debt increased $23.1 billion or 16.5 percent during 1992-97, only modestly above the inflation rate. Total farm assets exceeded $1.13 trillion in 1997 as farm equity increased for the eleventh straight year (or 62.5 percent during the span). The sector debt load relative to income and the debt to asset ratio are both steady. The total rate of return has been in the 4.9-6.3 percent range since 1993.

Figure 1
Total farm business debt increasing, 1992-97
$ billion

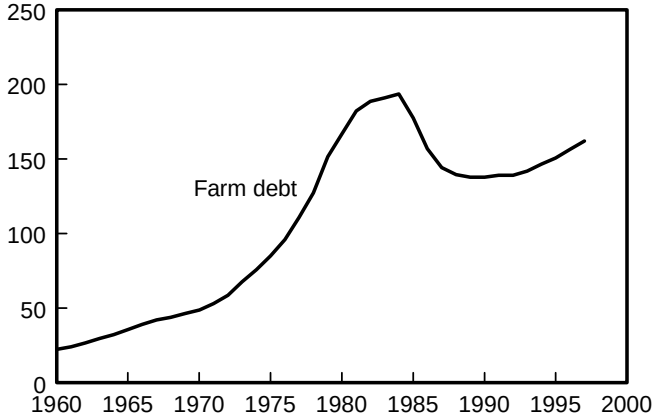


Figure 2
Annual change in farm debt positive since 1993
$ billion

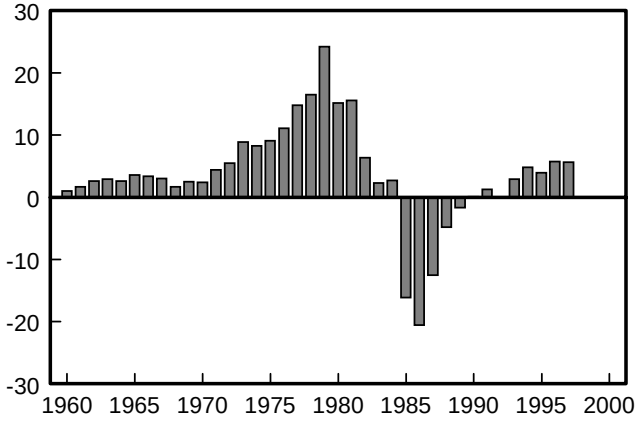


Figure 3
Farm sector balance sheet shows equity growth
$ billion

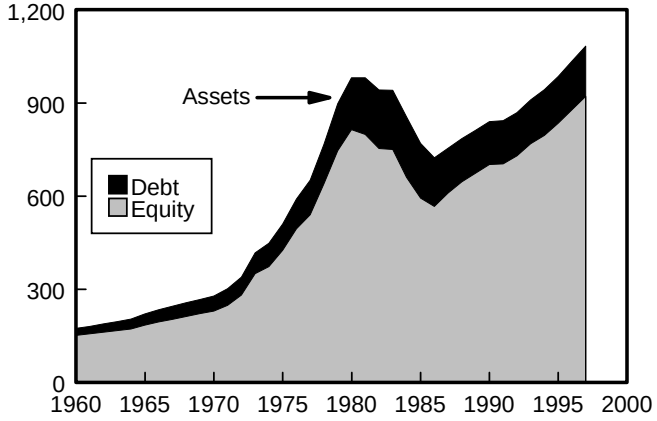


Figure 4
Farmers' debt load continues at lower levels relative to income
Ratio of debt to income

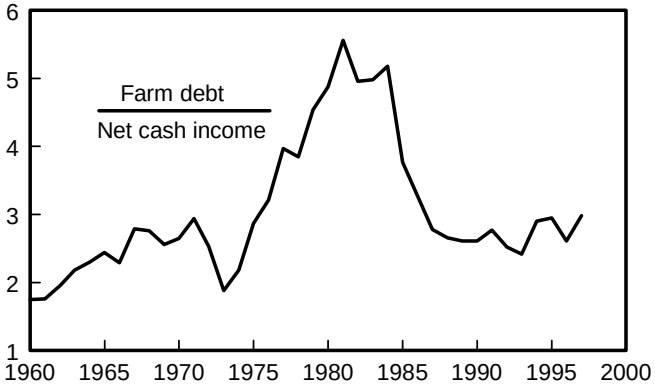


Figure 5
Real net farm and net cash incomes decline in 1997
Billion 1992 dollars

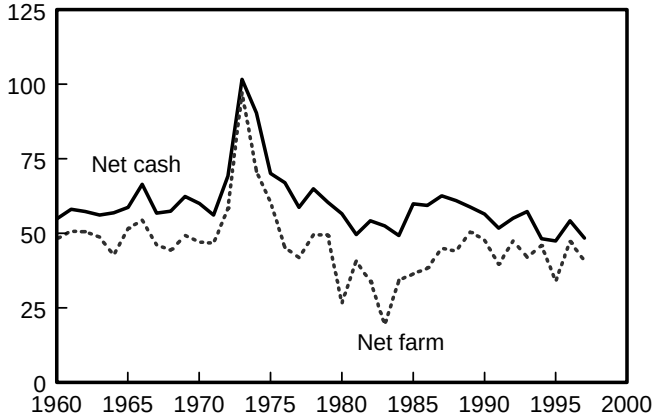
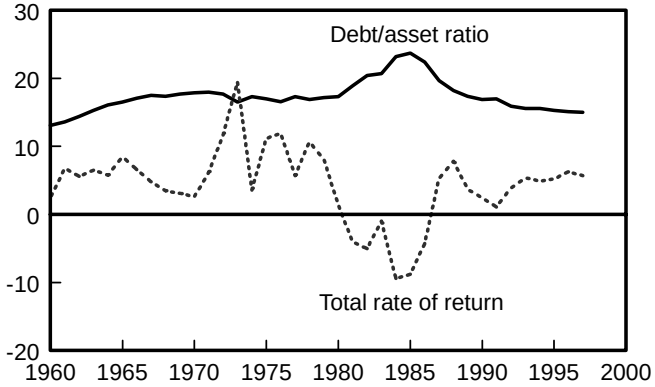


Figure 6
Farm sector debt to assets and total rate of return ratios return to more normal levels
Percent



Lenders' Financial Performance Strong

Farm lenders experienced another profitable year and entered 1998 in financially sound condition.

Lenders' Financial Position Continues Strong

The position of agricultural lenders in 1997 reflected the generally healthy state of farmers' finances in recent years. All major institutional lender groups except FSA continue to experience historically low levels of delinquencies, foreclosures, net loan chargeoffs, and loan restructuring (tables 2 and 3).

The financial health of the FCS and commercial banks remains strong. FCS net income through the third quarter of 1997 was $935 million, compared with $950 million a year earlier. FCS net interest margin for the first 9 months of 1996 was 2.93 percent. The spread has remained near or above 3 percent since the first quarter of 1993, helping to maintain profits. Net interest income was $1.629 billion for the 9 months ending September 30, 1997, compared with $1.627 billion a year earlier.

Agricultural banks reported high average return on equity (ROE) and return on assets (ROA) for the 6 months ending June 30, 1997, and very low rates of net loan chargeoffs. Continued strong performance in ROA indicates excellent loan quality in farm bank loan portfolios. In terms of loan quality, farm banks continue to outperform small nonagricultural banks. ROE is higher for small nonagricultural banks, but this partly reflects higher equity at agricultural banks. Agricultural bank loan loss provisions remained at 0.3 percent in the first half of 1997, reflecting an optimistic outlook regarding future loss rates. Only one agricultural bank failed in 1997 and only six failed during 1993-97.

USDA's Farm Service Agency, the government farm "lender of last resort," continues to work through delinquencies in its direct loan programs. The principal on delinquent loan volume fell to $2.6 billion at the end of fiscal 1997, from $3.5 billion the previous year. Despite the decline, nearly 27 percent of direct loan program principal remains delinquent, with higher percentages still pervading the emergency loan programs. Improving financial condition of its borrowers and active loan restructuring explain much of the decline in delinquent volume. Loan writedowns, recovery writeoffs, and debt settlement approvals were down almost half in fiscal 1997, totaling $696 million. Net loan writeoffs fell to $682 million in fiscal 1997, from $1.3 billion a year earlier. During the 5 fiscal years 1987-91, net chargeoffs of $12.1 billion resulted from the FSA loan writedowns, writeoffs, and debt settlements approved. Net chargeoffs declined to $6.2 billion during the most recent 5 fiscal years 1993-97 (table 3).

Lenders will be dealing with more variation in farm sector economic performance. While net cash income is expected to be stable in 1998, net farm returns under the new, more market-oriented 1996 Farm Act could affect future earnings and farmland values. Farmers are expected to use their available credit lines more fully in 1998. In 1998, farmers are expected to use over 57 percent of the debt that could be supported by their incomes, up from 45 percent in 1993. The effects of expected favorable interest rates throughout 1997-98 will not be sufficient to offset the combined effects of rising debt and lower net cash income. While not expected to be a widespread problem, some affected farmers may have difficulty meeting their debt service obligations. There will be important differences by region, commodity, and farm size.

FCS Market Share Holds

While farm credit use has been rising during most of the 1990s, substantial changes have occurred in the market shares of farm business debt among the four classes of traditional farm lenders as well as in the composition of loans made by each class. It is important to note the interplay between two key lender classes, commercial banks and the FCS, who together held 65.2 percent of farm debt at yearend 1997. Since 1981, when their market share was 21.3 percent, commercial banks consistently raised their share of total farm loans, to 39.8 percent by 1995 before experiencing a slight decline in 1996. Much of this shift occurred at the expense of the FCS, whose market share dropped from a high of 34 percent in 1982 to 24.4 percent in 1994, before increasing in 1995-97.

Commercial banks' total farm loan portfolio grew 56.6 percent during 1987-97, while the FCS portfolio dropped 44.8 percent from a 1982 high to a 1993 low. The farm financial crisis of the early 1980s adversely affected the FCS, causing many farmer borrowers to leave because of the financial turmoil and the fear that they could lose their stock in failed FCS units. Commercial banks also experienced financial stress but were able to compete effectively in the crisis' aftermath to build market share. During 1995-97, FCS farm lending grew 15.4 percent ($5.5 billion) while commercial bank farm loans increased 11.4 percent ($6.6 billion). Commercial banks accounted for about 45 percent of the estimated $5.7-billion increase in farm lending in 1997; the FCS for 27.5 percent of the increase.

Table 1—Distribution of farm business debt, by lender, December 31, 1997 1/

Lender	Type of debt		
	Real estate	Nonreal estate	Total
	Percent of total		
Commercial banks	15.3	24.4	39.7
Farm Credit System	16.2	9.3	25.5
Farm Service Agency	2.6	2.8	5.4
Life insurance companies	6.1	---	6.1
Individuals and others	11.7	11.6	23.3
Commodity Credit Corporation	0.0	---	2/
Total	51.9	48.1	100.0

Preliminary. Due to rounding some subcategories may not add to totals. 2/ This excludes CCC crop loans which are estimated at $1 billion at the end of calendar 1997.

Table 2—Delinquent farm loan volume, by lender, 1988-97

Lender	Yearend 1/									Mid-year
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997 2/
	Billion dollars									
Commercial banks 3/ 4/	1.0	0.7	0.6	0.7	0.6	0.5	0.4	0.4	0.5	0.6
Farm Credit System 5/	3.3	2.5	2.5	2.2	1.9	1.5	1.1	0.8	0.6	0.6
Life insurance companies 6/	0.8	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1
Farm Service Agency 7/	12.5	11.1	8.1	7.3	6.6	5.8	4.4	4.5	3.5	2.6
	Percent of outstanding loans									
Commercial banks 3/ 4/	3.3	2.3	1.9	1.9	1.8	1.4	1.1	1.1	1.3	1.4
Farm Credit System 5/	8.0	6.1	6.1	5.4	4.6	3.6	2.7	1.8	1.3	1.2
Life insurance companies 6/	8.9	4.7	4.2	3.8	3.3	2.2	2.6	2.7	0.9	0.9
Farm Service Agency 7/	49.8	47.8	41.3	41.7	42.5	41.0	34.8	39.0	32.6	26.8

1/ End of fiscal year (Sept. 30) for the Farm Service Agency (FSA) and end of the calendar year (Dec. 31) for the other lenders. 2/ June 30 except for FSA. 3/ Delinquencies were reported by institutions holding most of the farm loans in this lender group. Data shown are obtained by assuming that the remaining institutions in the group experienced the same delinquency rate. 4/ Farm nonreal estate loans past due 90 days or more or in nonaccrual status, from the Reports of Condition submitted by insured commercial banks. 5/ Data shown are nonaccrual loans, which include accrued interest receivable and exclude loans of the Banks for Cooperatives, Ag Credit Banks, and affiliated associations. 6/ Loans with interest in arrears more than 90 days. 7/ A loan is delinquent if a payment is more than 30 days past due. Data shown are for September 30; thus, they avoid the yearend seasonal peak in very short-term delinquencies and so are more comparable with those shown for other lenders. The FSA data reflect the total outstanding amount of the loans that are delinquent (as do the data shown for other lenders), rather than the smaller amount of delinquent payments that is often reported as FSA "delinquencies."

Table 3—Farm loan losses (net chargeoffs), by lender, 1986-97

Year	Commercial banks 1/		Farm Credit System 2/		Farm Service Agency 3/		Exhibit: Life insurance company foreclosures 4/	
	Million dollars (Percent of loans outstanding at end of period) 5/							
1986	1,195	(3.4)	1,321	(2.3)	434	(1.5)	827	(7.9)
1987	503	(1.6)	488	(0.9)	1,199	(4.3)	692	(7.5)
1988	128	(0.5)	413	(0.8)	2,113	(8.4)	364	(4.0)
1989	91	(0.3)	-5	(0.0) 6/	3,297	(12.4)	204	(2.3)
1990	51	(0.2)	21	(0.0) 6/	3,199	(13.5)	85	(0.9)
1991	105	(0.3)	47	(0.1)	2,289	(10.4)	95	(1.0)
1992	82	(0.2)	19	(0.0) 6/	1,887	(9.1)	148	(1.8)
1993	54	(0.2)	-2	(0.0) 6/	1,768	(9.4)	96	(1.1)
1994	69	(0.2)	-26	(-0.1)	1,353	(7.5)	42	(0.5)
1995	51	(0.1)	-4	(0.0) 6/	1,041	(6.0)	73	(0.8)
1996	95	(0.2)	48	(0.1)	1,344	(7.9)	82	(0.8)
1997 7/	25	(0.1)	13	(0.0) 6/	750	(4.6)	12	(0.1)

1/ Calendar year data for nonreal estate loans. 2/ Calendar year data. 3/ Fiscal year data beginning October 1. Includes data on the insured (direct) and guaranteed farm loan programs. 4/ Loan chargeoff data are not available for life insurance companies. 5/ Loan loss data rounded to nearest million dollars. 6/ Less than 0.05 percent. 7/ Commercial bank data through June 30, 1997, and Farm Credit System and life insurance company data through September 30, 1997.

Sources: American Council of Life Insurance, Board of Governors of the Federal Reserve System, The Farm Credit Council, and the Farm Service Agency.

Farmers' Use of Repayment Capacity Rises

Farmers' use of credit lines expected to increase marginally in 1998.

Additional Debt Not Expected To Unduly Burden Farm Operators

Somewhat lower 1998 income and higher farm business debt suggest that farm operators will have no additional income available to meet higher debt service payments on their loans. Interest rate declines in 1998 are not expected to be large enough to offset the effect of rising debt. Although some operators may experience difficulty in generating sufficient farm income to meet principal and interest payments, widespread financial stress is unlikely.

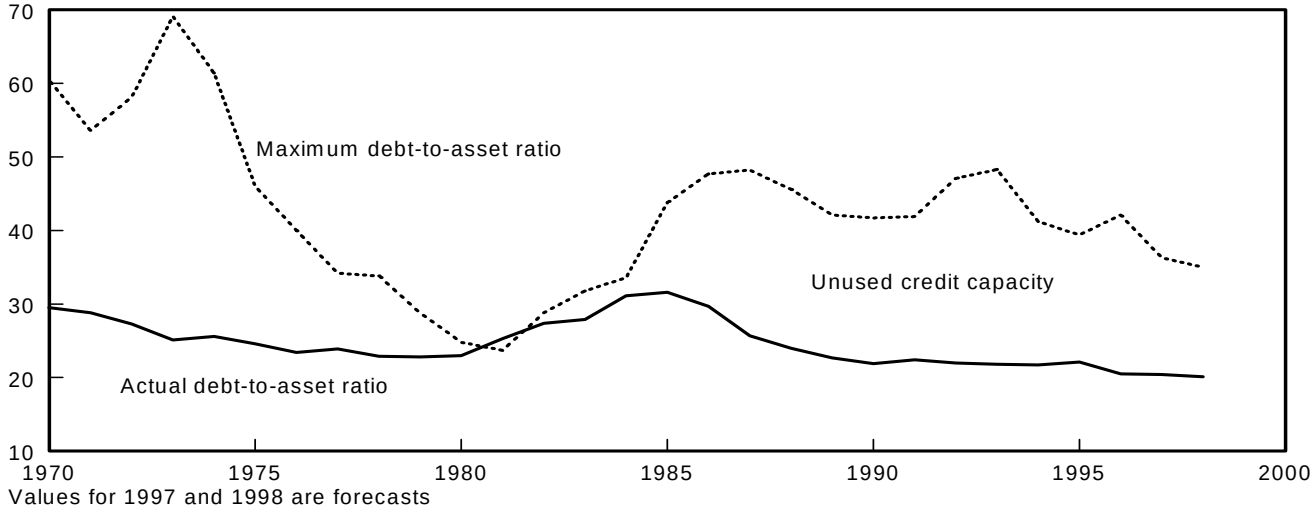
While rising land values reflect farmers' longer term expectations of profitability in the sector, farmers are anticipated to marginally increase their use of credit in 1998. Farm debt repayment capacity use (actual debt expressed as a percentage of maximum feasible debt) effectively measures the extent to which farmers are using their available lines of credit. This ratio indicates that, in 1998, farmers are expected to use almost 58 percent of the debt that could be supported by their current incomes. Use of debt repayment capacity rose from 45 percent in 1993 to 56 percent in 1995. Despite the 1996 rise in farm business debt, high net cash income and lower interest rates reduced repayment capacity use to 49 percent. In 1997, use of debt repayment capacity rose to 56 percent, and the 1998 level is expected to be the highest since 1986.

Lenders generally require that no more than 80 percent of a loan applicant's available income be used for repayment of principal and interest on loans. For farm operators, this income available for debt service (measured as net cash income plus interest) determines the maximum loan payment the farmer could make. Given current market interest rates and an established repayment period, the maximum debt that the farmer could carry with this loan payment can be determined. Using current bank interest rates and a 7-year repayment period, maximum feasible debt conceptually measures the line of credit that could be available to farmers. Debt repayment capacity use is a measure of actual debt relative to this theoretical maximum feasible debt.

Despite the rise in use of available credit capacity, the traditional debt-to-asset ratio indicates that farmers' financial position is not expected to deteriorate in 1998. The aggregate farm operator debt-to-asset ratio is projected at .20 at the end of 1998, as farm asset values are anticipated to rise more rapidly than debt. The farm operator debt-to-asset ratio appears to suggest a continuing improvement in farm financial conditions.

However, substitution of maximum debt into the debt-to-asset ratio computation indicates that improvement due to rising asset values may be potentially offset by lower cash incomes. The maximum debt-to-asset ratio that could be supported from current cash income fell from .42 in 1996 to .36 in 1997. In 1998, it is expected to decline further to .35--the lowest since 1984. The difference between actual and maximum debt-to-asset ratios suggests that farmers, in total, appear to have the capability to safely acquire additional debt. However, lower income available to service debt, coupled with lenders' emphasis on loan approval based on repayment ability rather than collateral values, will probably restrain any increase in farmers' borrowing activities.

Figure 7
Farm borrowing is below estimated credit limits
Percent



Values for 1997 and 1998 are forecasts

Real Estate Rates Decline While Non-Real Estate Rates Experience Slight Increase in 1997

Little change expected in interest rates during 1998.

Stable Farm Loan Rates in 1997

Interest rates on farm loans have maintained a stable, single-digit average during the 1990s. This is in contrast to the high-volatility, double-digit rates prevalent in the 1980s. Interest rates on short- and intermediate-term loans generally rose by a small amount from the first through the fourth quarters of 1997. Interest rates on long-term loans declined less than 50 basis points for the major farm lenders over the same period.

Interest rate volatility continues to be low, the result of low inflation, moderate economic growth, and low default risk in the farm sector. Stable interest rates allow farmers and lenders more confidence in their planning and investment decisions. Stable interest rates mean reduced risk exposure and fewer resources expended on inflation planning and management, reducing the cost of lending. This stability has moved the farm sector towards increased reliance on fixed-rate, longer-term loans.

More of the Same Expected for 1998

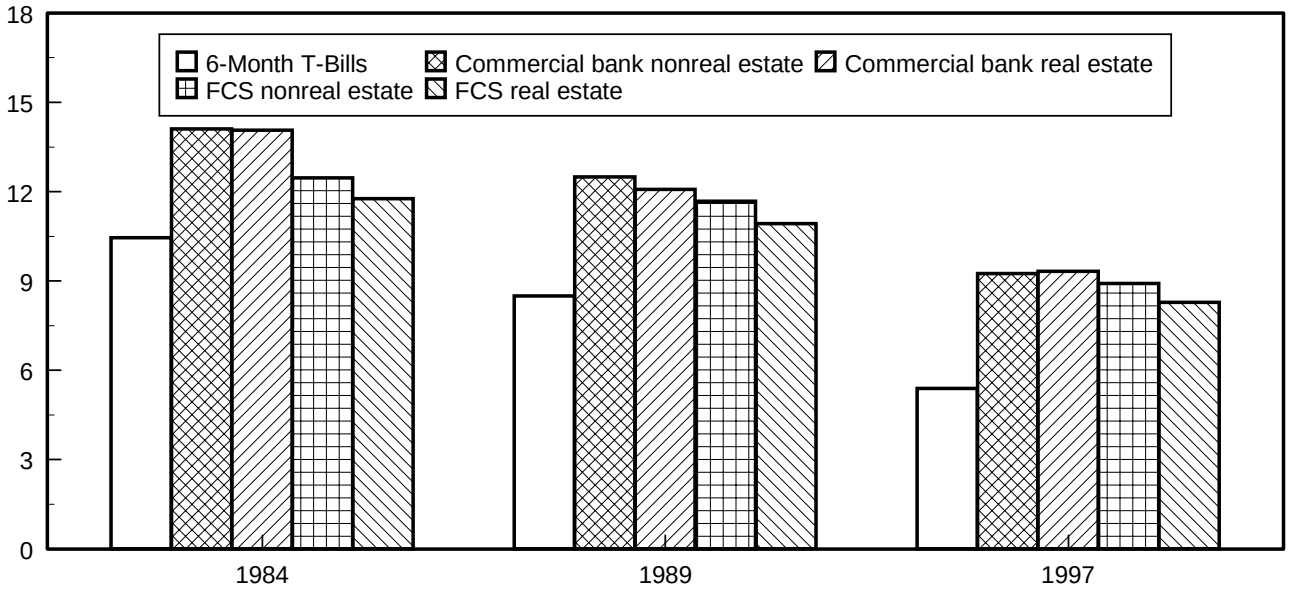
The economy is expected to grow at a moderate pace with low inflation. Tightening U.S. labor markets have created some concern about future inflation increases. However, intense competition in world product and factor markets should keep U.S. inflation in check.

Lower demand for U.S. farm exports and reduced Asian demand for American products should dampen credit demand by American farmers. Private capital flight from Southeast Asia to the United States will help increase credit availability. All things considered, farm loan rates are expected to vary little from their current levels through 1998.

Figure 8

Selected interest rates, selected years

Percent



Agricultural Banks Remain Highly Profitable

Farm banks have significantly reduced their delinquent loan portfolio.

Agricultural banks were very profitable in 1997. Low loan loss provisions and good interest rate spreads supported large profits for agricultural lenders. An annualized mid-1997 rate of return on assets (ROA) of 1.3 percent exceeded the strong 1996 average (table 6). Return on equity (ROE) increased to 12.4 percent.

Continued strength in ROA reflects substantial quality in farm bank loan portfolios. Loans in nonperforming status at midyear were only 1.2 percent of total loans (table 4), slightly above the average of 0.9 percent for small nonagricultural banks (table 4). As measured by ROA and loan quality, agricultural banks also matched the performance of the small nonagricultural banks to which they are often compared.

As farmers continued to slowly assume more debt, loan-to-deposit ratios at agricultural banks rose from 66.5 to 69.0 percent over the past year. Because this is an average, higher loan ratios at some small banks may lead their managers to consider slowing lending activity. But several surveys suggest that most agricultural bankers have the capacity and willingness to extend additional farm credit.

What Is an Agricultural Bank?

The Board of Governors of the Federal Reserve System (FRB) classifies a bank as agricultural if its ratio of farm loans to total loans exceeds the unweighted average of the ratio at all banks on a given date--16.64 percent on June 30, 1997 (table 5). The Federal Deposit Insurance Corporation (FDIC) criterion is a constant 25-percent ratio of agricultural loans to total loans. Unless otherwise indicated, the FRB agricultural bank definition is used throughout this report. Most farm banks retain much larger agricultural shares in their loan portfolios and therefore remain sensitive to conditions in the agricultural sector of the economy. Farm loans averaged 36 percent of total loans at all farm banks in 1997, and reached 47 percent for farm banks with below $25 million in assets (table 7).

Because the dollar amount of outstanding farm loans typically peaks in the summer and declines the rest of the year as production loans are paid down, the use of June data rather than end-of-year data in the last column of table 5 distorts recent trends in the number of agricultural banks. For the 6 months ending June 30, 1997, farm banks declined by only 37 to 3,203 using the FRB definition and by 16 to 2,464 using the FDIC definition. Comparing June 1997 to June 1996 (not shown in the table) shows much larger declines under both definitions; 135 fewer FRB farm banks and a drop of 171 following FDIC's approach to counting agricultural banks. The trend toward fewer agricultural banks reflects an industrywide drop in the number of commercial banks over the last decade due to mergers and failures.

Farm Loan Quality Continues To Improve

Farm loan quality continued to look solid through the first half of 1997. Only 1.4 percent of all commercial bank agricultural production loans were delinquent (table 2). This was down from 1.6 percent as of June 1996.

Net chargeoffs of farm production loans totaled $25 million (table 3) at all commercial banks in the first 6 months of 1997, down from $43 million in first-half 1996 (not shown). Recent chargeoffs are negligible relative to outstanding loans and chargeoffs observed during the farm crisis of the mid-1980s. Loan loss provisions remained at 0.3 percent of outstanding loans for agricultural banks, reflecting management's continued positive outlook for future loss rates (table 6).

Profitability Surpasses 1996 Results

Agricultural bank profits grew in 1997, with gains in both ROA and ROE. ROE for small nonagricultural banks exceeded the midyear ROE for agricultural banks, but their ROA was the same. Agricultural banks maintained higher average capital-to-asset ratios during 1997. Their larger capital ratios help explain why, on average, they had the same ROA but a smaller ROE compared with small nonagricultural banks.

Agricultural banks' loan-to-deposit ratios increased to 69.0 percent, compared with 72.7 percent at small nonagricultural banks. The ratio of loans to assets, 58.7 percent at agricultural banks and 61.5 percent at small nonagricultural banks, reveals the relative bank liquidity of these two groups. Both are highly liquid and eager to make additional loans, but expect loan demand to remain stable.

One agricultural bank failed in 1997 (appendix table 8), and two failed in 1996. This reflects continued improvement in farm bank loan quality and wide net interest margins, but also follows national trends of a very strong performance in the banking industry. No nonagricultural bank failed in 1997, compared with three in 1996. Only four agricultural banks and three nonfarm banks were categorized as weak at midyear, compared with five and four, respectively, at the end of 1996 (appendix table 7).

Strong profits and loan quality, and low expectations for future loss rates, allowed commercial banks to keep loan loss provisions low.

Table 4—Nonperforming loans as a percentage of total loans, by type of bank, 1989-97 1/

Type of bank	1989	1990	1991	1992	1993	1994	1995	1996	1997
					Percent				
Agricultural									
Total nonperforming 2/	2.3	2.0	1.9	1.8	1.4	1.1	1.1	1.3	1.2
Past due 90 days 3/	0.7	0.6	0.6	0.6	0.4	0.4	0.4	0.5	0.5
Nonaccrual	1.5	1.3	1.3	1.2	1.0	0.7	0.7	0.8	0.7
Small nonagricultural 4/									
Total nonperforming 2/	2.1	2.0	2.3	2.0	1.7	1.3	1.1	1.0	0.9
Past due 90 days 3/	0.7	0.6	0.7	0.5	0.4	0.3	0.3	0.3	0.3
Nonaccrual	1.4	1.4	1.6	1.5	1.3	1.0	0.8	0.7	0.6

1/ Data are weighted by bank asset size using month-end June balances. 2/ Columns may not equal totals due to rounding. 3/ Still accruing interest. 4/ Banks with less than $500 million in assets that were not agricultural by the Federal Reserve Board definition.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 5—Number of agricultural banks, by definition, 1989-97 1/

Item	1989	1990	1991	1992	1993	1994	1995	1996	1997 2/
Commercial banks (Number)	12,635	12,270	11,849	11,400	10,917	10,400	9,825	9,413	9,183
FRB agricultural banks (Number)	4,180	4,067	3,952	3,851	3,723	3,548	3,351	3,240	3,203
FRB farm loan ratio (Percent)	15.84	15.94	16.57	16.73	17.04	17.00	16.83	16.46	16.64
FDIC agricultural banks (Number)	3,172	3,090	3,116	3,019	2,947	2,826	2,642	2,480	2,464

1/ Includes domestically chartered, FDIC-insured commercial banks with deposits, assets, and loans. 2/ 1997 figures are for June 30; all others are December 31.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System (FRB).

Table 6—Selected bank performance measures, by type of bank, 1989-97 1/

Performance measure	1989	1990	1991	1992	1993	1994	1995	1996	1997 2/
					Percent				
Rate of return on equity capital									
Agricultural banks	10.7	10.7	11.4	13.1	12.8	12.1	11.9	11.8	12.4
Nonag small banks	10.1	8.5	9.1	12.0	12.9	12.8	13.0	12.9	13.0
Rate of return on assets									
Agricultural banks	1.0	1.0	1.0	1.2	1.2	1.2	1.2	1.2	1.3
Nonag small banks	0.8	0.7	0.7	1.0	1.1	1.1	1.2	1.2	1.3
Provisions for loan losses as a percentage of loans									
Agricultural banks	0.7	0.5	0.5	0.4	0.3	0.2	0.3	0.3	0.3
Nonag small banks	0.8	1.0	1.0	0.8	0.5	0.4	0.3	0.4	0.4
Capital as a percentage of assets									
Agricultural banks	10.1	9.9	10.1	10.4	10.9	10.8	11.3	11.1	11.6
Nonag small banks	9.0	9.0	9.2	9.6	10.1	10.1	10.6	10.7	10.9

1/ Rate of return on equity is net income after taxes as a percentage of the average of total equity capital at the beginning and end of the year. Rate of return on total assets is net income after taxes as a percentage of total assets on December 31. 2/ 1997 ratios are June 30 data, annualized.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Small Agricultural Banks Are the Biggest Farm Lenders

Agricultural banks with assets up to $300 million hold over half of all commercial bank farm loans, but nonagricultural bank shares have increased.

Both agricultural and nonagricultural banks increased the total value of their farm lending portfolios during June 1996-June 1997. However, agricultural banks reported only a $1.3-billion increase. The $2.4-billion gain over 1996 for nonagricultural banks left them with 45.9 percent of commercial bank farm loans (table 7), up 1.1 percent from the previous year.

The largest size class of nonagricultural banks holds over one-quarter of all commercial bank farm debt (table 7). With less than 17 percent of this debt, the other nonagricultural bank classes trail the combined 19-percent market share of the two smallest classes of agricultural banks.

Solvency Measures Look Good for All Bank Groups

Bank capital reduces the risk of bank failure by cushioning losses and supports liquidity by maintaining borrower confidence. Capital-to-asset ratios for midyear 1997 show that commercial banks--regardless of size--are solvent (table 8). Small commercial banks had capital-to-asset ratios ranging from 10.8 to 13.6 percent, compared with 10.5 to 10.8 percent for the three largest bank categories. A narrower measure, the ratio of equity capital to assets, averaged 12.5 percent of assets for the smallest banks, but only 7.9 percent for banks with assets above $500 million. Large banks tend to be highly leveraged, with more loans outstanding per dollar of equity capital.

Loan-to-deposit ratios suggest that small commercial banks are more liquid than larger banks. However, nondeposit funding sources and secondary markets for loan sales have weakened the loan-to-deposit ratio's traditional role as a liquidity measure. Some banks hold more loans, resulting in higher loan-to-deposit ratios. Other banks reduce risk and their loan-to-deposit ratios by selling loans and acquiring securities instead. Large banks use nondeposit sources of loanable funds liberally, as witnessed by their much lower value of deposits as a percentage of liabilities (table 8). This ratio was about 72 percent for the largest banks, but above 90 percent for all other size categories.

Largest Banks Most Profitable

Large banks lend a greater percentage of their asset base, but they typically earn lower rates of return on those assets (ROA) than do smaller banks. However, in the first part of 1997 the smallest banks registered the lowest ROA and the highest came from banks with $300-$500 million in assets. Large banks improved their profitability in part due to continued reductions in real estate loan problems. As of June 30, 1997, 1.1 percent of big bank real estate loans were nonperforming (appendix table 6), down from 1.4 percent a year earlier. Rate of return on equity (ROE) increased uniformly with bank size (table 9), helped by greater leverage in the larger banks.

The smallest banks, those with $25 million or less in assets, include 959 agricultural banks and 526 nonagricultural banks (table 7). The smallest agricultural banks provided 6 percent of commercial bank loans to agriculture. Agricultural banks achieved an average annualized ROA of 1.29 percent and ROE of 12.09 percent. Agricultural banks with less than $25 million in assets earned an ROA of 1.18 percent, compared with only 0.42 percent for nonagricultural banks of that size class.

Current Banking Issues

Interstate banking and branching legislation that became law in 1994 permitted interstate branching through bank mergers beginning in June 1997. Only two States, Montana and Texas, passed legislation opting out of interstate branching. While interstate banking will increase the pace of bank consolidation, agricultural banks are typically too small to attract attention from the mostly large banks that actively participate in interstate banking. New data are just now becoming available to help evaluate whether large banks lend to farmers and to small businesses in rural areas served by offices of those banks.

In 1997 Congress again came close to revising the Glass-Steagall Act, which limits bank activity in the insurance and securities industries. Prospects for a comprehensive legislative solution were complicated by conflicts between the banking, insurance, and securities industries, and between small and large banks. Many small banks fear that removing all Glass-Steagall barriers would concentrate economic power in a few giant, noncompetitive firms.

In February 1998, the banking industry won a Supreme Court decision preventing what it perceives as unfair extensions of credit union common bond requirements. Several other issues remain open from prior years. At a minimum, banks want equal tax treatment for large credit unions that serve wide portions of their communities. Legislative proposals to improve commercial bank access to funds from the Federal Home Loan Banks and from FCS banks did not succeed in 1997. The upward trend in loan-to-deposit ratios makes it likely that similar proposals will move forward this year, since some banks may be searching for additional loanable funds. Banks will definitely lobby against any new attempts to gain expanded powers for FCS institutions.

Recent problems in some Asian economies represent a direct potential threat only to large American banks with significant operations in those countries. Some secondary effects are possible in the form of reduced U.S. exports to, and increased imports from, those countries. As of early February 1998, agricultural banks are unlikely to experience much stress over this situation.

Small agricultural banks still hold the majority of farm loans, despite the declining number of agricultural banks.

Table 7—Agricultural lending of agricultural and nonagricultural banks, by bank size, June 30, 1997 1/

	Agricultural banks					Nonagricultural banks				
Total assets	Banks	Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/ total loans	Banks	Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/ total loans
Million dollars	*Number*	*---Million dollars---*		*-----Percent-----*		*Number*	*---Million dollars---*		*----Percent----*	
Under 25	959	4,203	4.4	6.0	47.4	526	247	0.5	0.4	5.4
25-50	1,063	9,166	8.6	13.2	41.7	1,082	1,096	1.0	1.6	4.6
50-100	798	11,764	14.7	16.9	36.6	1,535	2,660	1.7	3.8	3.9
100-300	349	9,628	27.6	13.8	30.7	1,854	5,554	3.0	8.0	2.9
300-500	20	1,342	67.1	1.9	30.1	350	1,835	5.2	2.6	2.2
Over 500	14	1,549	110.7	2.2	22.9	633	20,495	32.4	29.5	0.9
Total	3,203	37,654	11.8	54.1	35.7	5,980	31,886	5.3	45.9	1.2

1/ Figures are weighted within size class. 2/ This represents the percentage of total commercial bank agricultural loans held by this size group of banks.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 8—Selected commercial bank solvency and liquidity ratios, by bank size, June 30, 1997 1/

Total assets	Banks	Capital/ asset 2/	Equity/ asset	Loan/ deposit	Loan/ asset	Deposit/ liability
Million dollars	*Number*	*Percent*				
Under 25	1,485	13.6	12.5	64.5	55.0	97.6
25-50	2,145	11.7	10.7	67.2	58.2	97.0
50-100	2,333	11.2	10.3	69.8	60.0	95.9
100-300	2,203	10.8	9.7	72.4	61.4	94.2
300-500	370	10.5	9.1	76.8	62.8	90.3
Over 500	647	10.7	7.5	91.1	59.9	71.5
Total	9,183	10.8	7.9	87.2	60.1	75.2

1/ Weighted average within size class. 2/ Total capital includes equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 9—Selected commercial bank profitability and efficiency measures, by bank size, June 30, 1997 1/

Total assets	Return on assets 2/	Return on equity 3/	Asset utiliza-tion 4/	Noninterest income to total income	Interest expense to total expense	Interest expense to interest income
Million dollars	*Percent*					
Under 25	0.91	7.21	8.21	11.18	47.23	43.27
25-50	1.15	10.62	8.23	8.93	51.62	44.27
50-100	1.25	12.06	8.36	10.02	51.77	44.08
100-300	1.30	13.04	8.60	12.45	50.48	43.45
300-500	1.36	14.43	9.06	17.74	48.41	43.89
Over 500	1.21	14.94	9.02	24.99	49.18	49.10
Total	1.22	14.47	8.95	23.03	49.37	48.14

1/ All ratios are on an annualized basis and weighted within class size. 2/ Rate of return on assets is net income after taxes as a percentage of total assets. 3/ Rate of return on equity is net income after taxes as a percentage of total equity. 4/ Asset utilization is gross income as a percentage of total assets.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Increased Farm Credit System Loan Volume Keeps Profits Steady

The Farm Credit System's loan volume grew in 1997, helping maintain healthy profits. The Farm Credit Administration continues its regulatory review and prevailed in a court challenge from commercial bankers.

The financial condition of the Farm Credit System (FCS) remains solid as it enters 1998. Loan volume continues to grow, and loan portfolio quality is strong. Growth in loan volume rather than a reduction in nonperforming assets caused nonperforming assets to fall as a percent of outstanding loans since yearend 1996. Volume growth has supported the System's level of earnings as net interest income declined. Although down slightly for the first 9 months of 1997, earnings remained sufficient to raise the ratio of capital to assets despite increased loan volume.

For the third straight year, FCS loan volume grew faster than the rate of inflation (table 10). FCS loan volume grew 3.0 percent during the first 9 months of 1997. Long-term real estate loans grew a modest 2.5 percent since yearend 1996, while short- and intermediate-term loans grew 9 percent. Loans made directly to cooperatives or for their benefit (largely loans made in connection with international transactions) declined 1.7 percent because of a nearly 20-percent fall in loans to finance international transactions.

Nonperforming loans (nonaccrual loans plus accrual loans over 90 days past due) were flat in dollar terms but fell as a percent of loans outstanding since yearend 1996 (table 12). Nonperforming loans stood at $674 million or 1.07 percent of total loans outstanding on September 30, 1997. The level of nonperforming assets was 12 percent below a year earlier. Over 60 percent of nonaccrual loans remained current on interest payments.

FCS income has surpassed $1 billion each year since 1993 and was running well ahead of that pace again in the first 9 months of 1997 (table 11) although net income decreased $15 million or 1.6 percent from a year earlier. The decrease was primarily due to increased operating expenses and income taxes. Partially offsetting, however, was a rise in noninterest income and a decline in provisions for future loan losses.

Since 1990, FCS net income remained high chiefly due to strong performance in net interest income. Net income remained solid in the first 9 months of 1997 although net interest income was flat compared with a year earlier, as the total annualized interest rate spread fell from 3.02 percent to 2.93 percent. This spread remains high enough to support growth in loan volume and retained earnings.

Capital adequacy has been a major regulatory concern. By September 30, 1997, FCS at-risk capital, including loss allowances and the FCS insurance fund, stood at $13.2 billion or 21 percent of loans outstanding (table 12). Combined surplus capital and loss allowances are now 46 percent above the 1985 peak of $6.9 billion despite a 10-percent decline in loan volume.

Farm Credit Administration Continues Regulatory Review and Reform

The Farm Credit Administration (FCA) is an independent agency of the Federal government that regulates the Farm Credit System. FCA's board of directors has established regulatory reform as a major priority. Major initiatives in 1997 included reforming regulations concerning eligibility and scope of financing, general financing agreements (GFAs) between FCS banks and the lending institutions that borrow from them, and loan underwriting and pricing policies.

The most controversial changes have involved final rules for eligibility and scope of financing. The changes affect loans to farmers, financing of processing or marketing operations, loans to farm-related businesses, nonfarm rural home loans, and eligibility and scope of financing for Banks for Cooperatives (BCs) and Agricultural Credit Banks (ACBs). The regulations place fewer restrictions on financing to legal entities, to certain foreign nationals, and for marketing, processing, and farm-related business loans. Also, definitions related to nonfarm rural home lending are tightened and harmonized with Federal Agricultural Mortgage Corporation (Farmer Mac) standards. The American Bankers Association and the Independent Bankers Association of America sued the FCA, alleging the regulations conferred powers on the FCS not intended by Congress. In November, a Federal Court dismissed the suit, but an appeal has been filed.

The final rule on GFAs revises regulations governing funding relations between FCS banks and FCS direct lender associations or non-FCS financing institutions (OFIs). This rule

- eliminates the need for prior approval from FCA for such agreements,
- establishes minimum GFA content requirements,
- requires that GFAs include maximum credit limits based on creditworthiness,
- restricts certain default remedies, provides for voluntary liquidations, and
- requires notice to FCA and the FCS Insurance Corporation when there is a material default related to a GFA or associated document.

The final rule on loan underwriting addresses loan agreements, disclosure of loan terms, collection of financial information, security requirements for long term loans, amortization schedules for intermediate term loans, and the use of agents for independent credit judgements.

Loan volume and operating efficiency continue to improve, while net income holds steady.

Table 10—Farm Credit System loan volume, by loan type, December 31, 1991-96 and September 30, 1997

Loan type	1991	1992	1993	1994	1995	1996	1997
				Billion dollars			
Long-term real estate	28.77	28.66	28.46	28.40	28.43	29.60	30.35
Short and intermediate term	11.22	11.11	11.59	12.39	13.80	15.11	16.47
Loans to or for the benefit of cooperatives	11.47	12.63	13.86	13.89	16.36	16.47	16.18
Total	51.46	52.40	53.91	54.68	58.59	61.18	63.00

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 11—Farm Credit System income statement, December 31, 1991-96 and September 30, 1997

Item	1991	1992	1993	1994	1995	1996	1997 1/
				Billion dollars			
Total interest income	5.51	4.72	4.35	4.68	5.59	5.78	5.89
Interest expense	-3.95	-2.93	-2.39	-2.72	-3.57	-3.62	-3.72
Net interest income	1.56	1.79	1.96	1.96	2.02	2.16	2.17
Provision/reversal for loan losses	-0.05	-0.02	-0.04	-0.05	-0.04	-0.14	-0.12
Loss/gain on other property	0.02	0.01	0.00	0.00	0.00	0.01	0.01
Other income	0.16	0.22	0.21	0.14	0.17	0.20	0.23
Other expense	-0.79	-0.82 2/	-0.84	-0.92 3/	-0.84 4/	-0.86	-0.86
Debt repurchase	0.00	-0.04	-0.02	0.00	-0.01	0.00	0.00
Taxes	-0.09	-0.15	-0.15	-0.13	-0.14	-0.17	-0.19
Net income	0.81	0.99	1.11 5/	1.01	1.17	1.20	1.25

1/ Annualized rate based on first three quarters' performance. 2/ Includes $.028 billion in one-time merger implementation costs associated with the Agribank merger. 3/ Includes $.072 billion in one-time merger implementation and restructuring costs. 4/ Includes $.006 billion in one-time merger implementation and restructuring costs. 5/ Does not include one-time net income of $104 million from changes in accounting for income taxes and nonpension post retirement benefits.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 12—Farm Credit System financial indicators, December 31, 1991-96 and September 30, 1997

Item	1991	1992	1993	1994	1995	1996	1997
				Percent			
At-risk capital/total loans 1/	14.09	15.91	17.87	19.06	19.42	20.22	20.98
Percent of loans in nonaccrual status or over 90 days past due	4.70	3.84	2.76	1.95	1.42	1.10	1.07
Other expense/total loans 3/	1.53	1.51	1.56	1.55	1.41	1.40	1.37 2/

1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock and participation certificates, and the FCS Insurance Fund. 2/ Annualized rate based on first three quarters' performance. 3/ Excludes one-time merger implementation and restructuring costs.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Strong Farm Credit System Performance Masks Weaker Loan Quality or Declining Profits at Some Institutions

While total lending, loan portfolio quality, and at-risk capital remain strong, some institutions see rising nonaccrual loans and falling incomes.

FCS systemwide statistics hide differences in performance among FCS districts and entities. Aggregate nonaccrual loans decreased 12 percent for the year ending September 30, 1997, marking the sixth year of impressive improvements in loan portfolio quality. Previously, aggregate nonaccrual loans had fallen an average of 22 percent per year for the preceding 5 years.

However, for the past 2 years, the St. Paul BC has recorded large increases in nonaccrual loan volume, reflecting exposure of some borrowing cooperatives to potential losses associated with certain hedging contracts, higher feed costs, lower livestock prices, and adverse weather conditions. CoBank, ACB, and Texas also registered double-digit increases in nonaccrual loans during the year ending September 30, 1997. Texas's loan quality was hurt by a State supreme court ruling that the Boll Weevil Eradication program was unconstitutional, raising concern about the status of $36 million in loans to the Texas Boll Weevil Eradication Foundation. Despite these increases, no districts or FCS banks have ratios of nonaccrual to total loans exceeding 2 percent.

At-risk capital continues to accumulate faster than loans outstanding. At-risk capital measures all resources that can be liquidated without impairing bondholders. Such resources include unprotected borrower stock and allowances for losses on loans as well as surplus. The all-district level of at-risk capital increased 6.83 percent, while the all-district ratio of at-risk capital to total assets increased more moderately due to growth in assets.

The ratio of at-risk capital to total assets is a measure of the cushion between stockholders and bankruptcy. This ratio exceeded 17 percent for each district not engaged in lending to cooperatives. Both CoBank and the St. Paul BC maintained lower capital-to-asset ratios of 10.2 and 14.5 percent, respectively. While the Wichita and Western districts allowed their ratios of at-risk capital to assets to decrease slightly over the year, the St. Paul BC substantially increased its ratio for the second consecutive year, reversing a decrease in 1995 that followed rapid business expansion.

Systemwide net income before taxes and extraordinary items fell 4.4 percent from a year earlier for the 9 months ending September 30, 1997, but this decrease was unevenly distributed across FCS banks and districts. Net income rose in three districts (AgAmerica, AgFirst, and CoBank), while net income fell at a greater than average rate in three districts (AgriBank, Wichita, and Western) and the St. Paul BC. The substantial fall in net income for the St. Paul BC (-49.57 percent) was caused in part by a large increase loan loss provisions (figure 9).

AgriBank, with total loan volume of $16.2 billion, replaced CoBank as the highest volume FCS district while the St. Paul BC ($2.1 billion) remained the smallest of the FCS banks (table 13). Wichita, with $4.4 billion in loans, continued to show impressive growth, gaining 8.5 percent, compared with aggregate loan volume growth of 3.3 percent. The St. Paul BC was the only district or bank where loan volume fell substantially (down 8.9 percent) following a fall of 2 percent the previous year.

New Initiative Seeks To Compete for Point-of-Sale Financing

In December 1997, the FCS inaugurated its first nationwide credit product, AgSmart, a point-of-sale trade credit program designed to overcome obstacles to offering consistent lending products and terms across areas served by different FCS institutions. These obstacles reflect complications created by the limited lending authorities and exclusive territorial charters granted to most FCS Banks and associations.

Overcoming these obstacles in a customer-friendly credit facility requires a complicated structure. The facility seeks to provide dealers with a uniform, nationally available program with attractive and flexible terms while protecting FCS institutions from poor credit risks. Many separate entities within and outside of the FCS are participating in this venture. Non-FCS participants include EDS, a data processing firm, which will accept and screen credit applications and American Express Centurion Bank, a commercial bank headquartered in Salt Lake City, which will book loans and provide initial funding. Centurion Bank's participation will allow retailers to offer credit through AgSmart to both FCS-eligible and other borrowers. For legal reasons, interests in loans--not whole loans--to FCS-eligible borrowers will be sold back to FCS institutions. Loans to other borrowers will be retained by Centurion Bank.

AgSmart will fund operating loans with maturities up to 15 months, revolving lines of credit for farm inputs, and 3-, 5-, and 7-year loans or leases for machinery and equipment. Dealers will be able to offer promotional rates or interest-free periods. Program managers hope to capture 15 percent of the farm trade credit market within 5 years, and, if successful, use AgSmart as a model for marketing other Farm Credit products.

Nonaccrual loans continue to fall dramatically in many districts. Texas, CoBank, ACB, and St. Paul Bank for Cooperatives are exceptions. Net incomes have fallen in most districts while total at-risk capital has increased in all districts.

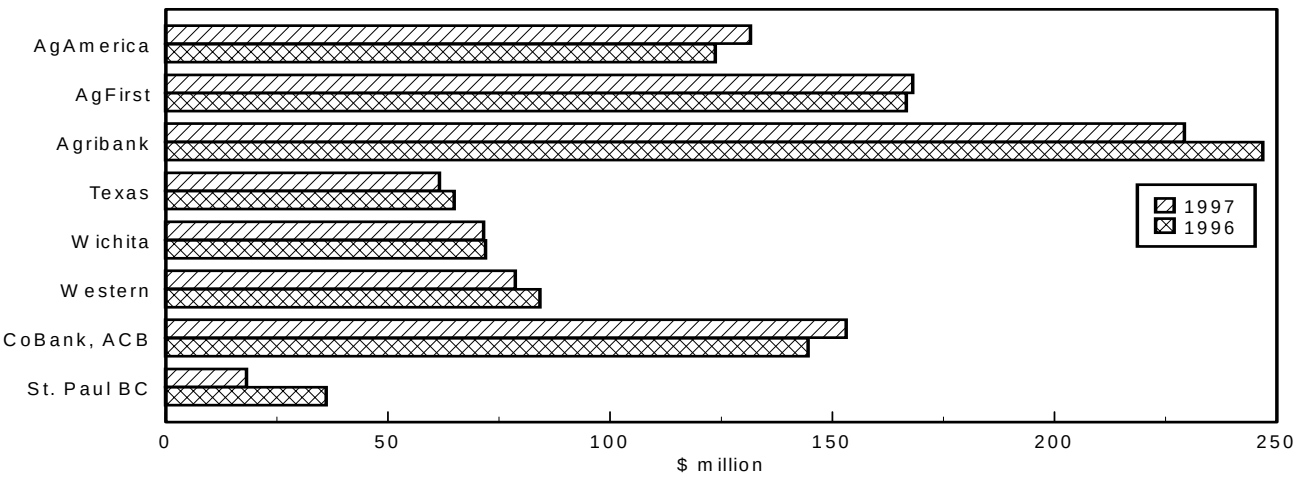
Table 13—Farm Credit System district-level financial statistics

	Total loans	Nonaccrual loans	Nonaccrual loans' share	Net income before taxes and extraordinary items	Total at-risk capital 1/	At-risk capital/ assets
	$1,000	*$1,000*	*Percent*	*$1,000*	*$1,000*	*Percent*
	----------Nine months ending September 30, 1997----------					
AgAmerica	7,120,042	113,858	1.60	131,688	1,675,541	21.69
AgFirst	9,652,864	94,920	0.98	168,234	2,152,373	19.46
Agribank	16,220,793	185,734	1.15	229,331	3,417,663	17.53
Texas	4,100,875	55,102	1.34	61,699	1,038,014	22.75
Wichita	4,416,419	48,748	1.10	71,585	1,149,934	22.29
Western	5,238,944	53,198	1.02	78,737	1,148,388	18.69
CoBank, ACB	15,400,915	64,354	0.42	153,218	1,914,370	10.20
St. Paul BC	2,061,380	30,062	1.46	18,242	353,712	14.51
All Districts	64,212,232	645,976	1.01	886,680	12,790,782	16.99
	----------Nine months ending September 30, 1996----------					
AgAmerica	7,185,770	139,526	1.94	123,770	1,567,635	19.82
AgFirst	9,297,383	129,762	1.40	166,756	2,036,879	18.94
Agribank	15,094,301	221,183	1.47	247,018	3,185,441	17.43
Texas	3,946,626	49,185	1.25	65,021	988,932	22.31
Wichita	4,069,803	54,220	1.33	72,037	1,053,594	22.42
Western	4,949,578	74,341	1.50	84,321	1,082,918	18.73
CoBank, ACB	15,329,955	47,673	0.31	144,631	1,787,201	9.82
St. Paul BC	2,262,229	19,521	0.86	36,173	312,682	11.56
All Districts	62,135,645	735,411	1.18	927,238	11,972,576	16.47
	----------Percent change, September 30, 1996 to September 30, 1997----------					
AgAmerica	-0.91	-18.40	-17.64	6.40	6.88	9.43
AgFirst	3.82	-26.85	-29.54	0.89	5.67	2.75
Agribank	7.46	-16.03	-21.86	-7.16	7.29	0.57
Texas	3.91	12.03	7.82	-5.11	4.96	1.97
Wichita	8.52	-10.09	-17.15	-0.63	9.14	-0.58
Western	5.85	-28.44	-32.39	-6.62	6.05	-0.21
CoBank, ACB	0.46	34.99	34.37	5.94	7.12	3.87
St. Paul BC	-8.88	54.00	69.00	-49.57	13.12	25.52
All Districts	3.34	-12.16	-15.00	-4.37	6.83	3.16

1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock.

Source: Federal Farm Credit Banks Funding Corporation, Summary Report of Condition and Performance of the Farm Credit System, various dates.

Figure 9
District net income for 9 months ending September 30



Direct Lending Associations Dominate Farm Credit System Lending

Mergers and consolidations have concentrated FCS lending among a few relatively large associations.

Since the mid-1980s, the FCS has evolved from a system where primary leadership emanated from district banks to one centered around direct lending associations (DLAs). DLAs include Agricultural Credit Associations (ACAs), Production Credit Associations (PCAs), and Federal Land Credit Associations (FLCAs). Federal Land Bank Associations (FLBAs) are not considered a DLA since they do not hold portfolios of loans. In 1996, 75 percent of all FCS farm loans were held by DLAs, compared to around 20 percent in 1985. In 1996, the largest DLA, Mid-America ACA, held $3.8 billion in loans, served four States, and had over 43,000 voting stockholders. In contrast, the smallest DLA, Delta PCA, had a portfolio of only $7.4 million, served five Arkansas counties, and had 115 voting stockholders.

Nationwide, 28 percent of all lending by DLAs was undertaken by just four associations that had over $1 billion in assets (table 14). Farm lending in the CoBank ACB and AgAmerica FCB districts is dominated by large associations. In the CoBank district, 60 percent of all lending occurs through the First Pioneer-Empire ACA. AgAmerica, which covers eight States from Iowa to Washington, has only three associations, two of which are jointly managed. Associations with less than $100 million in assets held only 9 percent of farm loans made by DLAs, but remain an important source of nonreal estate credit in the Texas and Wichita FCB districts.

There has been a trend toward associations with the authority to lend across the entire maturity spectrum. Of the 157 DLAs in 1996, 60 were organized as ACAs. Moreover, 28 PCAs and 28 FLCAs are paired in jointly managed relationships (table 14). Only the Texas and Wichita FCB districts have maintained the more 'traditional' structure characterized by smaller PCAs and FLBAs, each under separate management.

DLAs Well Capitalized

The permanent capital ratio for DLAs averaged 16.2 percent and no association reported a ratio below 11 percent. All associations with less than $50 million of assets reported capital levels in excess of 20 percent (table 14). High capital ratios may reflect efforts to lower costs by using retained earnings to support lending activity or to reduce portfolio risk associated with commodity concentrations. The capital stock of most DLAs is primarily comprised of unallocated surplus. Unallocated surplus represents retained earnings of a cooperative that have not been allocated to the accounts of individual borrowers. Allocated surplus represents cooperative earnings which have been allocated to the accounts of individual borrowers but not yet paid to them. Allocated surplus was limited to the AgFirst district where associations allocated 31 percent of total surplus to borrowers, compared to less than 5 percent in other districts.

Reliance on retained earnings for capitalization makes associations vulnerable to reductions in capital ratios if loan volume grows rapidly. Sustained loan volume growth, as could occur under broader charter authorities, may not be supportable using only retained earnings to capitalize the associations. Growth in loan volume may have to be constrained or DLAs might find it necessary to sell additional stock to borrowers or investors.

Differences in Borrower Rates Do Not Explain Interest Margin Variability

Net interest margins, (net interest income / average earning assets), ranged from under 2.9 percent to 4.6 percent, averaging 3.6 percent, across all DLAs (table 14). Most associations had margins of 3.9 percent or less while 53 associations had margins of 4 percent or more. The average rate received on earning assets, which are primarily loans, ranged from 8.6 percent in Agribank to 9.2 percent in AgFirst.

Adjusting for borrower patronage refunds and non-interest income removed much of the inter- district variability in rates received on earning assets. This suggests that much of the variation in net interest margins was attributable to cost differences or unique financial arrangements between FCBs and their related associations. For example, some FCBs consistently provided patronage refunds to associations while others did not. The average cost of funds to associations ranged from 5.8 percent in the Wichita FCB to 7.0 percent in the AgAmerica FCB. One explanation is that FCBs adjusted the interest cost charged associations to effect a transfer of capital between the FCBs and their related associations.

There also was inter-district variation in total non-interest costs, ranging from 180 to 280 basis points. Cost variability was partially due to differences in association size. For associations under $50 million in size, non-interest (salaries and other operating) expenses were 320 basis points (table 15).

Most FCS DLAs are well capitalized, providing opportunities to reduce interest rates to borrowers or take on additional lending risk without jeopardizing the association's financial stability. Differences in association size and structure reflect the culture of district banks and local associations. Hence, movement toward greater homogeneity in FCS association size and structure is likely to be driven primarily by the desires of individual association boards of directors, rather than by coordinated direction from the FCBs and CoBank. Moreover, change is more likely to occur over an extended period of time than to be quick and decisive.

Table 14—Characteristics of Farm Credit System Direct Lending Associations (DLAs), by Farm Credit System District, December 31, 1996

	FCS District							
	CoBank	AgFirst	Agribank	Wichita	Texas	Western	AgAmerica	All
	Number of associations							
Association type:								
PCA	0	1	19	17	16	11	1	65
ACA	5	39	11	0	0	4	1	60
FLCA	0	0	19	0	0	12	1	32
Total	5	40	49	17	16	27	3	157
Jointly managed PCA-FLCA	0	0	36	0	0	18	2	56
FLBA	0	0	0	22	38	0	0	60
Distribution of district loan volume	*Percent of loan volume*							
Association size in assets:								
Under $50 million	0	0	1	41	22	*	0	2
$ 50 million - $100 million	0	3	6	44	78	9	0	7
$100 million - $250 million	18	53	29	15	0	36	0	29
$250 million - $1 billion	82	44	33	0	0	55	0	34
Over $1 billion	0	0	31	0	0	0	100	28
District average weighted by Association loan volume:								
Net interest margin 1/	3.6	3.5	3.4	4.6	4.0	4.4	2.9	3.6
Rate received on earning assets 2/	8.7	9.2	8.6	8.7	8.6	9.0	9.1	8.9
Other income/earning assets	1.0	0.8	0.8	0.1	0.7	0.1	2.3	0.9
Average annual cost of borrowed funds 3/	6.0	6.8	6.4	5.8	6.5	5.9	7.0	6.2
Salary/earning assets	1.1	1.1	1.1	1.7	1.6	0.9	1.2	1.1
Other operating expense/ earning assets	1.2	0.7	1.0	1.0	1.2	1.0	1.0	0.9
Permanent capital ratio	17.8	18.7	14.8	24.8	22.7	14.9	13.9	16.2

* Less than 0.5 percent. 1/ Net interest income/average earning assets. 2/ Includes income on investment securities. 3/ Interest expense/average outstanding liabilities.

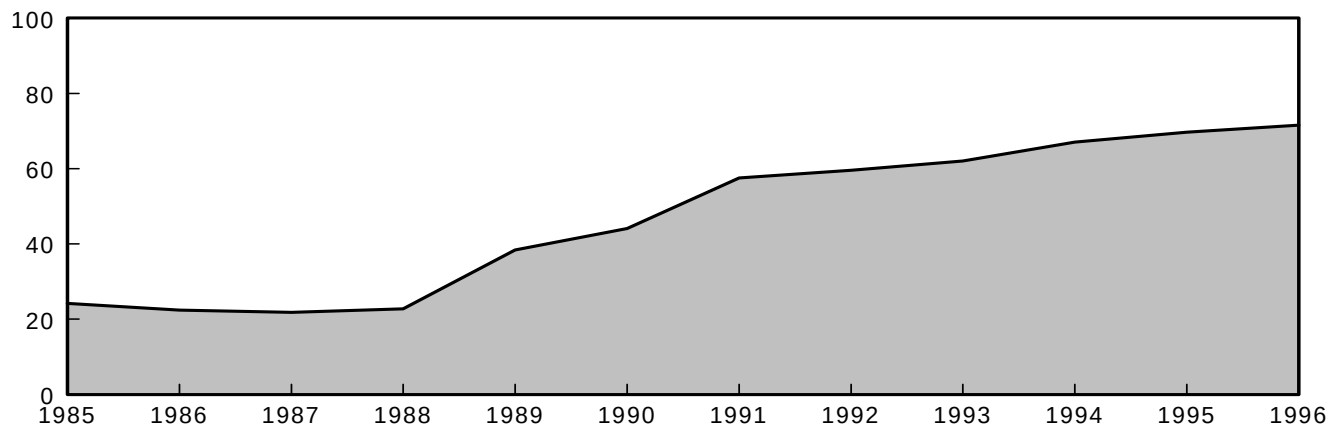
Source: 1996 Association Annual Reports to Stockholders.

Table 15—Characteristics of Farm Credit System Direct Lending Associations by Association size, December 31, 1996

	Association Size (assets)				
	Under $50 million	$50-99 million	$100-249 million	$250-999 million	$1 billion or more
	Percent				
Net interest margin	4.8	4.4	3.9	3.7	4.4
Average annual rate on earning assets	9.1	8.7	9.0	8.8	8.8
Other income/earning assets	0.4	0.7	0.7	0.7	1.5
Average annual cost of borrowed funds	6.0	6.1	6.6	6.4	6.8
Salary/earning assets	1.9	1.5	1.1	1.1	1.0
Other operating expense/ earning assets	1.3	1.1	0.9	0.8	0.9
Permanent capital ratio	22.8	20.3	17.4	15.4	14.2

Figure 10

Share of FCS farm loan volume made by direct lending associations



Life Insurance Company Farm Loan Portfolios Financially Strong

Approximately $1.75 billion in new farm mortgage loans was closed in 1997 compared with $1.8 billion in 1996. Loan activity to continue strong in 1998.

Historically, agricultural real estate mortgages have been an important investment for life insurance companies, which have been a key source of farm real estate loan funds. Approximately 20 life insurance companies on June 30, 1997 held 16,500 agricultural loans. During 1997, the quality of agricultural mortgage portfolios of life insurance companies was high and continued to strengthen.

Delinquencies at Low Level

The agricultural loan delinquency rate based on dollar volume was 0.94 percent on June 30, 1997, down from 2.92 percent a year earlier. The June 30, 1997, nonagricultural rate was 2.58 percent (table 16). Agricultural mortgages showed a huge drop in delinquency rates in the fourth quarter of 1996. The drop was due to the foreclosures of a large number of delinquent loans in the fourth quarter and growth in the total agricultural loans outstanding. Since 1991 the agricultural delinquency rate has generally been lower than the nonagricultural rate. Some $94.9 million in life insurance company agricultural mortgage debt was delinquent on June 30, 1997, the lowest since 1977.

Foreclosures Rates Also Low

The share of agricultural mortgage loans in the process of foreclosure stood at 0.33 percent on June 30, 1997, and has been below the nonagricultural rate since 1991 (table 17). A total of $32.8 million in life insurance company farm mortgage loans was in the process of foreclosure on June 30, 1997, down from $192.8 million 5 years earlier. Agricultural mortgage loans in the process of foreclosure totaled 43 on June 30, 1997, down from 1,403 on December 31, 1987.

The number and dollar amounts of agricultural and nonagricultural loans actually foreclosed have been declining throughout the decade (table 18). They are now running at levels comparable to 1981 and earlier. Agricultural mortgage loan foreclosures were only $81.5 million in 1996.

Important Trends Affect Lending

The life insurance industry's relationship with agriculture has changed rapidly in recent years. In spite of the changes, life insurance companies have been resilient lenders to the farm sector, occupying an important market segment. They held 11.8 percent of the farm mortgage debt (including operator households) at yearend 1997, compared with 12 percent when the USDA data series began in 1910, and a high of 25.1 percent in 1955-56. According to the American Council of Life Insurance, total life insurance company farm mortgage loans increased 6.5 percent for the year ending September 30, 1997. Life insurance company farm loan portfolios have grown for 5 consecutive years.

The number of life insurance companies making new farm mortgage loans declined from 12 in 1980 to 6 in late 1996, with most departures occurring in 1986. Metropolitan Life purchased the $327.5 million agricultural loan portfolio of MBL Life Assurance in December 1996. Approximately 20 companies now hold farm mortgages. In June 1997, AEGON N.V., a Netherlands company that is one of the world's largest insurance groups, acquired the farm mortgage portfolio of the Providian Corporation.

The six companies (AEGON USA, Equitable, Metropolitan Life, Mutual of New York, Prudential, and Travelers) currently active in farm lending account for about 85 percent of the industry's farm mortgages and generally have both high total assets and large farm mortgage portfolios. They have virtually pulled out of the small- to medium-sized farm mortgage market in favor of more agribusiness, timber, and specialty enterprises. These companies are emphasizing larger ($500,000 or more) agricultural loans.

The concentration of life insurance farm mortgage holdings has been shifting away from the Corn Belt to the Southeast and Pacific Coast farm production regions. The share of the industry's outstanding mortgage volume in the Corn Belt declined from 23.5 percent in 1980 to 13.5 percent in 1996, while the Pacific region's share increased from 19.3 percent to 36.1 percent. At 1996 yearend (based on the most recent available State-level data), the Pacific region, Florida, and Texas together accounted for 51.8 percent of total outstanding dollar volume of life insurance farm mortgages.

The life insurance industry's relationship with agriculture has grown more complicated in recent years. Total loans held by life insurance companies (excluding households) at yearend is estimated at $9.9 billion. The industry also now holds $2.9 billion in direct farmland investments, up over elevenfold since 1979. The nominal average farm loan increased 338 percent in size between 1980 and 1997.

Outlook Is Generally Favorable

The life insurance industry continues to take a significant interest in farm real estate financing. There will be opportunities in 1998 for life insurance companies to make profitable farm mortgage loans, but the competition for the better-quality loans will continue to be keen, particularly from the FCS. Active companies continue to have sufficient loanable funds to meet demand and are aggressively competing on rate, terms, and loan-to-value ratio. The six companies active in the farm loan market continue to report that available funds exceed qualified agricultural applications. Total life insurance company farm loans outstanding are projected to increase slightly in 1998 for the sixth consecutive year.

Table 16—Life insurance company mortgage loan delinquencies, 1990-97 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
	Percent			
1990 June	1.87	3.41	2.94	5.26
Dec.	2.10	2.40	3.60	4.22
1991 June	2.30	3.55	5.25	6.35
Dec.	2.66	2.34	5.79	3.84
1992 June	2.87	4.07	7.35	5.48
Dec.	3.05	2.64	6.50	3.33
1993 June	2.78	3.47	6.23	4.06
Dec.	2.84	1.99	4.48	2.21
1994 June	2.94	2.51	5.00	3.77
Dec.	2.81	1.27	3.34	2.60
1995 June	2.67	1.67	3.53	2.85
Dec.	2.51	1.14	3.43	2.72
1996 June	2.48	1.57	2.58	2.92
1996 June	2.48	1.57	2.58	2.92
Dec	2.50	0.83	1.81	0.92
1997 June	2.66	0.96	1.57	0.94

1/ Delinquent loans (including loans in the process of foreclosure). A delinquent loan is a nonfarm mortgage with interest payments in arrears at least 2 months (60 days if other than a monthly pay) or a farm loan with interest in arrears more than 90 days.

Table 17—Life insurance company mortgage loans in the process of foreclosure, 1990-97 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
	Percent			
1990 June	.46	1.31	1.56	2.23
Dec.	.51	1.13	1.71	1.91
1991 June	.58	1.26	2.39	2.45
Dec.	.68	1.29	2.78	2.24
1992 June	.77	1.74	3.40	3.11
Dec.	.76	1.57	3.08	2.32
1993 June	.84	1.52	2.89	1.93
Dec.	.80	1.04	2.14	1.30
1994 June	.82	.97	2.46	1.04
Dec.	.82	.68	1.77	1.11
1995 June	.80	.62	2.05	1.02
Dec.	.68	.32	1.42	1.17
1996 June	.70	.42	1.52	1.26
Dec.	.66	.30	1.09	.32
1997 June	.61	.26	.90	.33

1/ Reporting companies account for approximately 85 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey. Loans in foreclosure include those on which foreclosure action has been authorized, including any involved in a subsequent filing of bankruptcy. Beginning in 1988, the loans in foreclosure category includes loans in redemption period.

Table 18—Life insurance company mortgage loans foreclosed, 1984-97 1/

Year	Nonagricultural mortgages		Agricultural mortgages	
	Number	*Thou. dollars*	*Number*	*Thou. dollars*
1984	1,024	242,428	475	289,251
1985	1,033	328,558	1,000	530,235
1986	1,541	1,143,082	1,654	827,472
1987	2,048	1,580,027	1,515	691,914
1988	1,196	2,530,105	727	364,414
1989	1,098	2,178,949	356	204,361
1990	1,018	3,042,171	122	85,281
1991	1,284	4,942,349	125	94,875
1992	1,365	6,665,288	88	148,006
1993	1,159	6,013,084	79	96,318
1994	844	4,463,787	31	41,745
1995	640	3,055,039	21	73,258
1996	400	1,661,973	23	81,538
1997 2/	166	863,893	8	11,556

1/ Loans foreclosed include those for which title to the property or entitling certificate was acquired during the period shown, either through foreclosure or voluntary conveyance in lieu of foreclosure. Dollar amounts include principal outstanding at the time of the foreclosure, amounts capitalized for interest, foreclosure costs and any advances made to protect the collateral. 2/ January 1 through June 30.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Farm Service Agency Loan Volume Falls

Lending to beginning farmers continues to grow.

Total FSA direct and guaranteed lending volume in fiscal 1997 fell nearly 14 percent from a year earlier (table 17). The decline occurred in all programs, with the steepest declines in the guaranteed operating loan (OL) program. The $1 billion in guaranteed OL obligations was nearly 21 percent below last year's pace and about half of what was authorized. Total guaranteed loan obligations in fiscal 1997 were the lowest since fiscal 1991.

Applications received by FSA for all loan programs were down in fiscal 1997, with the sharpest declines occurring in the Emergency Disaster (EM) program. Besides less need for natural disaster-related credit assistance, the declines in FSA activity are likely the result of an improving farm economy. Another explanation might be new lending rules spelled out by the Federal Agriculture Improvement and Reform Act of 1996. The 1996 Act imposed stricter lending rules for most FSA credit programs, which should lessen program demand. Many of the regulations implementing the 1996 law went into effect during 1997.

The Act encourages "graduation" from FSA credit programs through a number of mechanisms, such as imposing stricter limits on the time a borrower can borrow from FSA. This applies particularly to the direct loan programs. The Act also imposes stricter eligibility requirements on non-beginning farmer applicants. Borrowers with delinquent accounts that restructure their FSA debt through debt forgiveness, may become ineligible for additional FSA credit assistance.

A possible factor in falling FSA loan guarantee volume, especially guaranteed OL volume, may be the substitution of FSA assistance with assistance from the Small Business Administration's 7(a) guaranteed loan program. While the SBA has had the authority to guarantee farm business production loans since the 1970s, guarantees of these loans were infrequent until the early 1990s when new policies took hold. Since then, farm loans guaranteed by SBA have risen sharply. Commercial banks are both the primary providers of SBA and FSA guaranteed loans, and some banks may be choosing to process their farm loans through SBA rather than FSA.

Funding Trimmed for 1998, But Should Be Sufficient

Fiscal 1998 program funding has been trimmed somewhat from the previous year, but should be sufficient to meet demand. The exception may be the guaranteed Farm Ownership (FO) program, whose authorized funding level is substantially less than last year's obligation amount (table 18). The authority for the EM program was also cut sharply, but a sizable amount of unobligated 1997 supplemental appropriations is still available for fiscal 1998 use. EM loans help farmers recover from actual production or physical losses inflicted by natural disasters in counties designated as disaster areas.

The 1997 supplemental legislation also provided additional appropriations for direct OL and guaranteed OL with interest rate assistance lending programs until the authority is completely used. FSA has authority to transfer unused guaranteed OL authority at yearend to satisfy demand in other programs, particularly demand from beginning farmers for farm ownership loans. Unused guaranteed OL authority was transferred late in fiscal 1997 to clear a backlog of beginning farmer direct farm ownership loan applications.

Beginning Farmer Loans Grow

FSA's lending is now targeted to beginning farmers--generally those with less than 10 years experience owning or operating a farm or ranch. Loan obligation volume to beginning farmers was up strongly in the guaranteed and direct FO and OL programs in fiscal 1997. Despite greater emphasis on lending to beginning farmers during the 1990s, loans to these borrowers still represent only about 5 percent of all outstanding direct lending volume and 7 percent of outstanding guaranteed lending volume. The delinquency rates on these loans remain modest.

The direct FO program is the most highly targeted program to beginning farmers, with about 88 percent of fiscal 1997 obligations going to these borrowers. Within the direct FO program, the beginning farmer down payment loan program, which provides a 4-percent loan for 10 years on 30 percent of the purchase price of a farm, experienced a decline in volume. This program can be less attractive relative to other FSA farm purchase financing options. FSA has other financing programs that provide 4- or 5-percent loans for greater amounts and for longer periods.

Outstanding Volume Declines

FSA's outstanding direct lending program volume dropped 7 percent from fiscal 1996 yearend to under $10 billion (table 19). In contrast, outstanding guaranteed loan volume rose $145 million from last year, its smallest year-over-year rise in 9 years (table 20). Outstanding direct volume is declining because principal repayments and loan writeoffs, especially in the EM and Economic Emergency (EE) program, are exceeding the amount of new obligations being made each year. The EE program has not been funded for over a decade. FSA now serves 110,000 borrowers through its direct farm loan programs and nearly 40,000 through its guaranteed farm loan programs.

FSA past due principal and interest payments on direct loans fell again in fiscal 1997, and stood at just over $2 billion at yearend. Delinquencies dropped for all programs, but the largest occurred in the emergency programs. Delinquent payments in the guaranteed programs inched up again during the year, but remained under 2 percent of total outstanding guaranteed loan volume.

Table 19—Farm Service Agency farmer program obligations, September 30, 1986 to September 30, 1997

Year 2/	Obligations 1/				Outstanding principal of farmer programs 3/
	Total	Direct (Insured)	Guaranteed		
				Share of total	
	Million dollars			*Percent*	*Mil. dol.*
1986	4,367.5	2,807.9	1,569.1	35.9	29,240.4
1987	3,080.5	1,515.0	1,587.4	51.5	28,147.6
1988	2,320.7	1,065.8	1,271.4	54.8	28,242.6
1989	2,229.6	1,030.1	1,199.5	53.8	26,525.6
1990	2,193.2	921.3	1,271.9	58.0	23,684.0
1991	2,124.1	633.7	1,490.4	69.2	21,992.1
1992	2,306.4	714.5	1,591.9	69.0	20,460.6
1993	2,135.2	672.7	1,432.5	67.1	18,815.5
1994	2,725.6	881.9	1,843.7	67.6	18,040.1
1995	2,501.9	563.6	1,938.3	77.5	17,451.1
1996	2,683.2	832.3	1,850.9	69.0	16,940.5
1997	2,319.3	744.8	1,574.5	67.9	16,342.7

1/ Obligations are the dollar amounts of funds loaned or guaranteed, including the dollar amount of interest rate assistance provided on guaranteed loans for years prior to 1993. Excludes obligations for credit sales of acquired property, Indian land acquisition loans, and agricultural resource conservation demo loans. 2/ Fiscal years. 3/ Total outstanding principal balance of direct or insured and guaranteed program loans at yearend.

Sources: Farm Service Agency, 616 Report, 4067C Report, and 205 Report, various issues.

Table 20—Farm Service Agency major farmer program level and obligations, fiscal 1997, and program level, fiscal 1998

Program	Fiscal 1997 program level 1/	Fiscal 1997 obligations 2/	Fiscal 1998 program level 1/
		Thousand dollars	
Farm ownership (FO)			
Direct	28,150	84,173	45,552
Guaranteed	597,696	529,705	400,000
Operating loans (OL)			
Direct	519,856	515,720	490,472
Guaranteed	2,004,954	1,044,840	1,900,000
Emergency disaster (EM)	80,122	144,880	25,000

1/ Budgetary appropriations setting limits on the volume of new loans that can be issued during the fiscal year. Some funding is transferable between programs and some programs receive supplemental appropriations during the year. 2/ Actual amount of lending authority committed to new loans or loan guarantees.

Source: Farm Service Agency.

Debt restructuring and an improving farm economy help explain the decline in direct loan program delinquencies. FSA debt restructuring activity remained high during the year. Restructuring of delinquent debts includes such actions as the writedown and writeoff of principal and interest, debt consolidation, and payment deferrals. The estimated yearend market value of FSA's inventory of acquired real property also fell sharply in fiscal 1997 to $175 million. The decline can be partially attributed to 1996 rule changes that expedited acquired property disposal.

Net loan writeoffs (principal and delinquent accrued interest payments) on direct loans fell to $682 million, from $1.3 billion a year earlier. Lower losses in emergency loan programs explains much of the decline. Direct loan writeoffs are expected to moderate again in 1998, but with $2 billion in delinquent payments, losses will remain high. Losses on guaranteed farm loans edged up to $68 million in fiscal 1997, from the $46 million reported in fiscal 1996.

Table 21—Farm Service Agency direct farmer loan program delinquencies, September 30, 1986 to September 30, 1997

Year 1/	Number of active cases 2/			Principal outstanding		
		Delinquent 3/			Delinquent 4/	
	Total	Total	Proportion	Total	Amount	Share of total
	----------*Number*----------		*Percent*	----------*Million dollars*----------		*Percent*
1986	421,651	134,565	31.9	27,575.9	6,276.5	22.8
1987	388,833	127,577	32.8	25,763.7	6,592.0	25.6
1988	376,388	137,958	36.7	25,065.0	8,321.7	33.2
1989	346,442	114,737	33.1	23,281.9	8,005.6	34.4
1990	299,069	80,341	26.9	19,544.2	6,138.8	31.4
1991	280,528	79,204	28.2	17,465.5	5,507.5	31.5
1992	251,892	73,657	29.2	15,536.7	4,804.8	30.9
1993	224,739	56,099	25.0	13,775.5	4,116.2	29.9
1994	208,130	47,723	22.9	12,622.6	3,569.9	28.3
1995	193,963	52,627	27.1	11,518.0	3,198.8	27.8
1996	182,238	42,101	23.1	10,580.2	2,419.6	22.9
1997	170,422	32,039	18.8	9,837.5	2,035.7	20.7
1997 by major programs						
Farm ownership	62,824	7,430	11.8	4,024.4	222.1	5.5
Operating loans	50,616	13,149	26.0	2,572.9	512.0	19.9
Emergency-disaster	36,521	7,556	20.7	2,319.5	1,017.5	43.9
Economic emergency 5/	11,288	2,868	25.4	801.4	267.6	33.4

1/ September 30 of year shown to account for the annual cyclical trend in delinquencies. 2/ Duplicated cases because some borrowers have loans under several different programs. Prior to 1988 active cases excluded those borrowers who are in foreclosure, bankruptcy, or liquidation status. Active cases do not include loans made to associations. 3/ Prior to 1988 a case was considered delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a case is delinquent if a payment is more than 30 days past due. 4/ Past due principal and interest payments. 5/ Program is no longer being funded.

Source: Farm Service Agency, 616 report, various issues.

Table 22—Farm Service Agency guaranteed farmer loan program delinquencies, September 30, 1986 to September 30, 1997

Year 1/	Number of active cases			Principal outstanding		
		Delinquent			Delinquent 2/	
	Total 3/	Total	Proportion	Total	Amount	Share of total
	--------*Number*--------		*Percent*	--------*Million dollars*--------		*Percent*
1986	NA	NA	NA	1,664.5	31.4	1.9
1987	18,887	1,052	5.6	2,384.0	42.6	1.8
1988	27,519	1,298	4.4	3,177.6	54.1	1.7
1989	30,016	1,580	5.3	3,243.7	60.6	1.9
1990	36,955	1,681	4.6	4,139.8	58.5	1.4
1991	40,169	1,904	4.7	4,526.6	59.3	1.3
1992	42,189	2,376	5.6	4,923.9	102.8	2.1
1993	42,475	2,077	4.9	5,044.8	98.5	2.0
1994	44,129	1,659	3.8	5,417.5	82.3	1.5
1995	46,838	1,821	3.9	5,933.1	91.3	1.5
1996	48,468	2,311	4.8	6,360.3	112.5	1.8
1997	49,512	2,540	5.1	6,505.2	124.5	1.9
1997 by major program area						
Farm ownership	20,252	786	3.9	2,984.9	35.1	1.2
Operating loans	29,131	1,725	5.9	3,507.9	86.9	2.5

1/ September 30 of year shown. 2/ Amount delinquent includes past payments of principal and accrued interest. 3/ Duplicated cases because some borrowers have loans under several different programs. NA = Not Available.

Source: Farm Service Agency, 4067 Report, various issues.

Farmer Mac Volume Increases Modestly

After expanding its investment portfolio, profits rise sharply.

Sales of loans through the Farmer Mac I secondary market for farm mortgages and the Farmer Mac II secondary loan market for USDA guaranteed loans rose during 1997. During the year, Farmer Mac purchased $231 million in loans under Farmer Mac I, and issued $198 million in new agricultural mortgage-backed securities (AMBS). Although Farmer Mac I volume is growing, volume remains small compared with the FCS's $4.5 billion and the life insurance industry's $2.2 billion in 1996 farm mortgage origination volume. The outstanding volume in the Farmer Mac I market grew from $420 million at 1996 yearend to $570 million at 1997 yearend.

Use of the Farmer Mac I market will likely continue to grow modestly in 1998. The pace of purchasing will be heavily influenced by such factors as the demand for long-term fixed-rate lending, the liquidity in the rural banking system, the competitiveness of its programs, and the ability of Farmer Mac to attract new sellers. Measures of liquidity in the banking system show many rural banks are less liquid than in the past and that could spur demand. Yet, surveys have shown that liquidity remains a modest concern among many bankers.

Recent declines in interest rates and a nearly flat yield curve would be expected to boost demand for Farmer Mac's principal products in 1998, if such conditions were to hold. In the housing markets, declining interest rates spur home mortgage origination volume as homeowners take advantage of lower fixed rates by refinancing existing indebtedness. However, farmers have been much less inclined to seek refinancing under such market conditions in the past.

Outstanding Farmer Mac II volume grew from $211 million at 1996 yearend to $273 million at 1997 yearend. Under Farmer Mac II, Farmer Mac purchases the USDA-guaranteed portion of farm loans, rural business and industry loans, and community development loans. The volume of loans sold through the Farmer Mac II market in 1997 totaled $95 million, up from $85 million purchased in 1996. Cumulative Farmer Mac II volume since 1991 totaled $365 million at 1997 yearend. Further growth in purchasing volume may be modest in 1998 if USDA-guaranteed farm loan volume falls again.

Loans Remain Large

The average size of loans securitized by Farmer Mac I remains large. A total of 425 loans in 28 pools backed the eight AMBS issued in 1997. Mortgages in the pools averaged nearly $465,000. This average is on par with that of the life insurance industry, but large compared to the $180,000 average for new FCS farm real estate loans made in 1996.

Loans came heavily from States in the Plains, Mountain, and particularly the Pacific Coast regions. As expected from the geographic concentration, the commodity enterprises backing the loans reflect the commodity strengths of these regions. As Farmer Mac's lender network grows, a wider diversity of loans is expected.

Nearly 45 percent of the $230 million in 1997 mortgage purchases had rates fixed for 10 to 15 years, while 43 percent had rates fixed for 5 years. The 1-, 3-, and 5-year adjustable rate mortgages made up the balance of 1997 purchase volume. None of the $26 million in adjustable rate mortgages purchased was issued as an AMBS during the year. Fixed rates are quoted with yield maintenance requirements, meaning that the borrower can not pay the loan ahead of the scheduled amortization (prepay) without paying a penalty.

Greater Investment Portfolio Produces Profits

Farmer Mac's Board of Directors has authorized the corporation to have up to $2.0 billion in outstanding discount notes and medium-term notes. In early 1997, Farmer Mac greatly expanded its debt issuance for investment or nonprogram purposes. Investment securities and cash or cash equivalents rose from $137 million at 1996 yearend to $931 million 6 months later. Farmer Mac increased debt issuance to bolster liquidity of its notes, and hence improve the pricing of its debt, and to increase its profits. Profitability rises because Farmer Mac borrows money at rates near U.S. Treasury rates and invests the proceeds in high quality, but higher-yielding investments with similar maturities. The more volume under this strategy, the greater the profits.

While all government sponsored enterprises (GSEs) have sizable investment portfolios, the size of Farmer Mac's portfolio relative to its core business of $843 million in guaranteed farm loan securities is notably high. The rise in investment volume did not go unnoticed, and in May the General Accounting Office commenced a review of the investment policies and practices of certain GSEs, including Farmer Mac. By yearend 1997 Farmer Mac's outstanding investment securities and cash or cash equivalents had shrunk to $834 million.

Farmer Mac's net income rose from $777,000 for 1996 to $4.6 million for 1997. The rise was largely due to a $4.5-million increase in net interest income to $7.2 million. Net interest income increased primarily due to the $700-million rise in interest-earning investment assets and a rise in net interest yield. Net interest yield rose because of a shift in the composition of Farmer Mac's investment portfolio from short-term investments to longer-term floating rate investments with greater spreads. Other factors improving net income were a $1.3-million increase in the net gain on security issuances and a $1-million increase in income from guarantee fees.

Noninterest expenses rose from $5 million to $7.8 million during 1997. The rise in noninterest expenses included a $1-million jump in employee compensation. Farmer Mac added new staff during the year to handle new business activity and to improve product marketing.

Farmer Mac Introduces New Programs

New authorities were proposed for the government sponsored enterprise.

Farmer Mac undertook a number of initiatives to boost volume during 1997. One was increasing the number of qualified Farmer Mac sellers. By October 1997 Farmer Mac had signed up 123 lenders, or about 40 more than reported a year earlier. Although growing, the number of approved lenders is still small relative to the 7,800 commercial banks reporting farm loans at mid-1997. Among the new qualified lenders were some large regional bank holding companies.

Besides efforts to expand its seller base, Farmer Mac unveiled new loan products during the year. These included 3- and 5-year adjustable rate farm mortgages and a part-time farm loan program for farms with substantial off-farm incomes. The part-time farmer loan program introduced late in the year is essentially a 25-year fixed-rate home mortgage product for farms on at least 5 acres or having at least $5,000 in gross farm sales. The home value must account for at least 30 percent of the total appraised value of the property. These loans are underwritten much like conventional home mortgages. Farmer Mac has had the authority to securitize rural home mortgages since its founding, but thus far has failed to tap this sizable market.

More Authorities Sought

There was some Congressional interest in expanding Farmer Mac's charter again in 1997. Since its creation 10 years ago, Farmer Mac authorities have been increased on three separate occasions. In August 1997, Farmer Mac's Board of Directors approved a resolution to support efforts by others to expand its authorities to include rural business financing as defined under USDA's Guaranteed Business and Industry (B&I) Loan Program. Farmer Mac already purchases B&I guaranteed loans under its Farmer Mac II authority.

Granting new authority to purchase rural business loans using this definition could result in a major expansion of GSE authorities. Not only would rural business real estate financing be eligible under this definition, but most other types of rural and farm business financing could be supplied by Farmer Mac in amounts up to $25 million. And because definitions of "eligible businesses" and "rural" are broad or undefined, the reach of these new authorities could be substantial. The expanded authority was the subject of Congressional hearings in September in 1997.

Farmer Mac unveiled a new program initiative in early-1998 which would also expand its authorities beyond what was originally envisioned for this market. Under this new initiative Farmer Mac would purchase general obligation securities (bonds) issued by qualified lenders that are collateralized by Farmer Mac I or Farmer Mac II qualified farm mortgages rather than purchasing the loans outright from lenders and then selling AMBS to investors. Under this arrangement the lender would keep the mortgage in portfolio and use the qualifying mortgage as collateral to borrow funds from Farmer Mac for short or long periods. Borrowed money would be used for any investment purpose. This approach would greatly streamline lender access to this GSE's low-cost funding.

Before new authorities were granted in 1996, Farmer Mac purchased securities from poolers under its Linked Portfolio Strategy. In that case, Farmer Mac purchased specific mortgage-backed securities from poolers and then financed the purchases by selling its own securities which closely matched the characteristics and cashflows of those purchased from the pooler. In this new case, there would be no need to match the interest rate, maturity, durations, and other relationships between the bond sold to Farmer Mac and the farm mortgages pledged as security. This feature would give maximum flexibility to lenders in obtaining lending funds. Another new feature would allow lenders to determine whether the collateral pledged to secure bonds issued to Farmer Mac meets the required underwriting and servicing standards.

Although operationally there are differences, this new initiative program is similar to the way Federal Home Loan Banks (FHLBs) provide funding to their member lenders (banks, thrifts, and credit unions). The mission of the FHLBs is to improve liquidity in home lending markets. Use of FHLBs by rural lenders lags significantly relative to urban users, indicating rural lenders may not be hard pressed for new lending funds at this time. Also, last fall the Federal Housing Finance Board proposed a rule that would allow farm mortgages containing a home to be eligible for borrowing through the FHLBs.

More Stock Sold

Farmer Mac increased its capital base by selling 400,000 shares of Class C Non-Voting Common Stock at $61 a share in November 1997. The sale boosted Farmer Mac's capital by about $23 million to $75 million at yearend. Farmer Mac has raised $55 million in fresh capital through common stock sales over a 1-year span, despite modest growth in its core businesses. The stock sale was completed to raise working capital and prepare for permanent capital standards that go into place in February 1999. The Farm Credit Administration has the authority to impose higher risk-based capital standards in 1999.

Farmer Mac began selling 100,000 shares of Class A Voting Common Stock to non-FCS lenders during the second quarter of 1997. To sell loans into the Farmer Mac I market, lenders must have purchased specified amounts of this stock, based on their total asset size. Through September, Farmer Mac had sold just 5,950 shares to 18 lenders.

Rising Farmland Values Help Farm Lenders and Farmers Holding Real Estate-Backed Farm Loans

Farmland value increases during 1996 continued a 10-year trend and helped strengthen the farm sector's balance sheet. Further gains are expected when 1997 results are tallied.

Farmland currently accounts for over 75 percent of farm sector assets. Some 51.9 percent of total farm sector debt at the end of 1997 was real estate debt, composed of either mortgages for purchase of farmland or short- or intermediate-term debt secured by farmland. Consequently, the financial security of farm sector borrowers and their lenders is affected by changes in farm real estate values.

Farm real estate values have increased continuously since 1987, significantly improving the financial position of many farm businesses. Although the financial performance of different farm sector segments varied, farmland values across the Nation were up during calendar year 1996. USDA's estimated value of all agricultural real estate reached an all time high of $942 per acre as of January 1, 1997, up 5.8 percent from a year earlier. Increases ranged from 3.2 percent in the Southeast and Delta regions to 7.7 percent in the Corn Belt. In real (inflation adjusted) terms, the national average rose 3.8 percent. Indications from non-USDA surveys of farmland values in several regions indicate that values continued to increase during calendar 1997, at a pace again exceeding the rate of inflation.

The value for January 1, 1997 is 57.3 percent above the trough of $599 reached in early 1987, an increase of 15.0 percent in real terms. Since 1987, five regions have exhibited gains of 20 percent or more (Northeast, Lake States, Corn Belt, Appalachia, and Pacific) in real terms, while the Northern Plains and Southeast have seen increases of 17 and 11 percent, respectively. The other three regions did not experience their lowest real values until 1992-93. Since then, these regions have seen real growth of 12.8 percent (Delta), 8.6 percent (Southern Plains), and 26.6 percent (Mountain), the last being notable as it has been recorded only since 1993.

Agricultural land values are primarily determined by the income earning potential of the land, as measured by expected returns from crops and livestock. However, in many areas, nonagricultural factors are playing a greater role. Where nonfarm influences are involved, farmland is often drawn out of agriculture for residential, commercial, or recreational uses. Farmland values in rapidly urbanizing areas or in areas popular as recreation destinations tend to be higher than would be predicted based on agricultural returns alone. These premiums above the purely agricultural value of the land represent the discounted present value of potential nonagricultural development.

Areas with the highest potential for development include those with the most rapidly increasing populations, including many of the Mountain and Pacific States, as well as Georgia, Texas, North Carolina, Tennessee, and Florida. Many of these States are also home to recreational attractions, such as parks, mountains, beaches, or cultural amenities.

Federal farm programs contribute to farmland values by increasing the expected returns from land and reducing the income variability of farm operations. Research has shown that the increased net returns for owners of farmland are partially "capitalized" into per acre values. The degree to which payments are capitalized has been found to be largest in the grain-growing regions of the Northern Plains and the Corn Belt, as well as scattered areas of the Southern Plains, Northeast, and Mountain regions.

With passage of the Federal Agriculture Improvement and Reform Act of 1996, direct payments are now scheduled to be reduced through 2002. As payments are phased down, a commensurate decapitalization of land values would be expected to occur, provided other factors in the farm economy remain unchanged. However, observed farmland values might not actually fall, because changes in other farmland value determinants may have an offsetting upward effect.

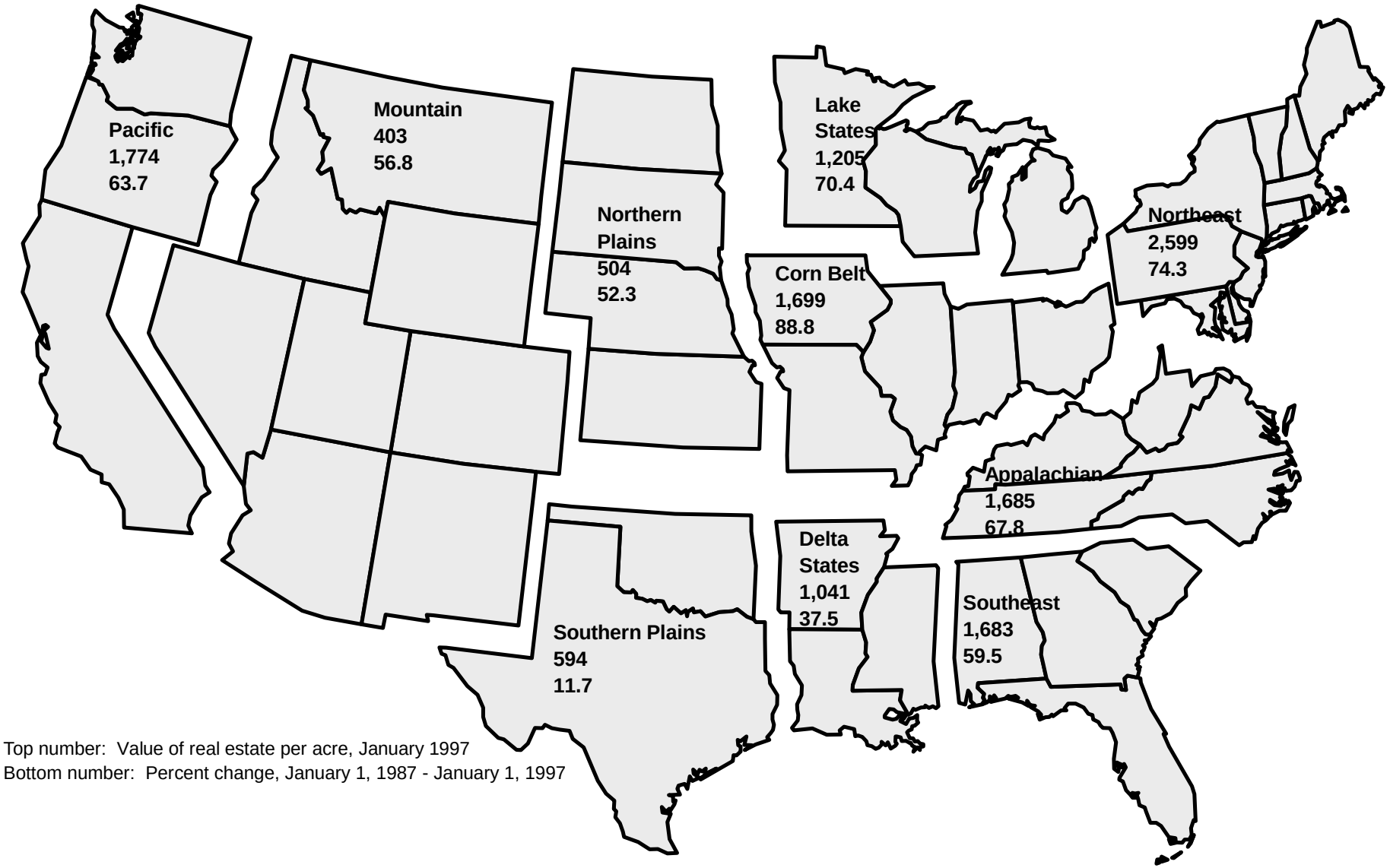
Table 23—Average per acre value of farm real estate, by farm production region, 1987, 1996, and 1997 1/

Region	1987	1996	1997	Change 1996-97	Change 1987-97
	Dollars			*Percent*	
Northeast	1,491	2,485	2,599	4.6	74.3
Lake	707	1,126	1,205	7.0	70.4
Corn Belt	900	1,578	1,699	7.7	88.8
Northern Plains	331	478	504	5.9	52.3
Appalachian	1,004	1,597	1,685	5.5	67.8
Southeast	1,055	1,631	1,683	3.2	59.5
Delta	757	1,009	1,041	3.2	37.5
Southern Plains	532	562	594	5.1	11.7
Mountain	257	379	403	6.3	56.8
Pacific	1,084	1,675	1,774	5.8	63.7
U.S.	599	890	942	5.8	57.3

1/ Value data are as of February 1 for 1987 and January 1 for 1996-97.

Figure 11

Average per acre value of farm real estate, 1997, and percent change, 1987-97, by farm production region



Top number: Value of real estate per acre, January 1997
Bottom number: Percent change, January 1, 1987 - January 1, 1997

Events in Asia Lower Prospects for U.S. Farm and Rural Economy

Farm and rural lenders can expect a lower cost of funds, but also a weaker farm sector outlook and slower employment growth in rural areas.

The ongoing financial crises in Southeast and East Asia are likely to lower the costs of farm and rural lending, but weaken the farm sector outlook and slow employment growth in rural areas. USDA's export credits to affected Asian nations are helping to mitigate the effects on U.S. agricultural exports. The Asia situation is expected to be a short- to medium-term event, with the outlook substantially brightening after 3 - 4 years. So, production credit decisions need to be scrutinized more carefully, but the long-term outlook for farm real estate remains good.

A 15-percent depreciation of Thailand's baht against the U.S. dollar on July 2, 1997, cascaded into a series of declines in currencies and stock prices in Asia. The fall of the baht followed a policy decision to let the country's currency float, as the Thai central bank had nearly depleted its financial resources to hold up the currency's value. The foreign exchange reserve drain was also caused by international investors pulling out their short-term loans.

The devaluations spread to other countries in Southeast Asia whose banking sectors, like Thailand's, have systemic problems, and whose economies also relied heavily on short-term foreign loans. The currency dives spotlighted weak regulation of financial and other enterprises in Malaysia, Indonesia, South Korea, and the Philippines, as well as Thailand. Currencies of Japan and Taiwan have lost value against the U.S. dollar as well, but to a lesser extent than in Southeast Asia and Korea.

As investors pulled their money out of the problem countries in Asia and from other potentially shaky emerging markets, they turned to U.S. government bonds for safe investments. So the value of the dollar rose against the currencies of other major U.S. customers and competitors, including Australia and Canada. The contagion has been reflected in some declines in stock markets around the globe, as investors anticipated lower profits for some multinational corporations.

Until the situation stabilizes, economic forecasts can only reflect a best guess as to how the markets will "bottom out." While currencies in Asia continue to lose value, the potential remains high for banking crises to spread to other emerging economies, and while the outlook for economic growth in Japan continues to sour, forecasters will not settle on a consensus regarding the severity of the situation.

The Asian countries most directly affected by the crisis--Thailand, Indonesia, Malaysia, the Philippines, and South Korea-- accounted for about 12 percent of U.S. agricultural exports in 1997. In contrast, Taiwan and Japan, where the problems are somewhat different, accounted for nearly 25 percent of U.S. agricultural exports in 1997. Steep currency devaluations in Southeast Asia and South Korea will lead to a sharp cut in their demand for imports. The region's welfare will suffer from its financial downturn, experiencing higher import prices, losses in stock markets, weak domestic demand, and credit constraints.

Most analysts agree that Asia's problems will persist until banking systems are reformed, and until other commercial operations that are effectively bankrupt are allowed to fail. Even with the required banking and institutional reforms complete, the affected countries will have to sharply boost exports to restore economic growth.The speed with which governments are able to implement the needed reforms will vary, and the reforms will take some time to return the economies to their previous growth rates. The pace of institutional reform will determine the duration of the economic turmoil.

Current thinking has some Southeast Asian countries and Korea resuming trend growth within 3 years. Recovery for some others in the region likely will take longer. Since exports account for over 45 percent of Southeast Asia's gross domestic product (GDP), the region's recovery requires a dramatic increase in exports. However, over 40 percent of developing Asia's exports have been intraregional, as have much of its trans-border investments. As demand throughout the region plunges, exports will have to expand rapidly outside the region, and investment funds will also have to come from outside. Japan's lackluster economic growth rules it out as a prime market for Asia's exports. Instead, other developed economies--primarily the United States and the European Union--will face more and cheaper Asian imports.

U.S. Economic Growth To Reflect Asia Downturn

Analysts agree that the reverberations of the economic crisis in Asia on the U.S. economy will be mixed. With a stronger U.S. dollar and lower incomes in Asian countries, the effect is for U.S. export growth to slow markedly, and imports to rise. As more capital is diverted into investments in the United States, interest rates decline, increasing investment. But the trade balance effect will dominate: the U.S. trade deficit will rise as total exports grow much more slowly and imports rise, pulling down U.S. economic growth, albeit by a modest amount, as demand for U.S. products slows.

U.S. merchandise exports to Asia account for about 30 percent of total U.S. exports and 3.4 percent of GDP. A 10-percent decline in total U.S. exports to Asia would translate into a drop in U.S. GDP growth of about half a percent.

Any impact of the Asia currency devaluations will be smaller on U.S. agricultural exports than on some other sectors--forestry and fishery, textiles and apparel, and durable manufactures, for example. Foreign demand for most U.S. agricultural products is less sensitive to drops in foreign

incomes and increases in domestic prices than is foreign demand for products from other sectors.

Because manufactured goods will account for much of the slowdown in U.S. export growth and the increase in imports, resulting declines in income and employment growth will affect rural areas more than urban areas. Manufacturing accounts for a larger share of the rural than the urban economy, where services dominate. Further, raw materials prices will be under downward pressure, curbing growth in mining, another sector important for the rural economy. So, the rural economy will see slower job growth compared with the rest of the Nation in 1998. This will also dampen employment prospects for many farm families who increasingly rely on off-farm income.

Downward Pressure on U.S. Agricultural Exports and Income

The slowdown in world economic growth due to events in Asia will affect the U.S. agricultural sector through two channels. One is the slowdown in *U.S. economic growth.* The other is the reduction in international *demand for U.S. agricultural exports*.

Three components of the Asian financial crisis will influence the *demand for U.S. agricultural exports*. One is the significant loss in the value of Asian currencies relative to the U.S. dollar, and also the strengthening of the U.S. dollar relative to the currencies of major customers and competitors in the region, such as Australia and Canada. The second is the response of producers and of consumers globally for the next several years to the new set of exchange rates and changed pattern of world growth. Third is the decline in economic growth in the region and the resulting slowdown in the region's consumer spending.

There is a secondary longer term effect associated with the appreciation of the U.S. dollar. With some lag in timing, the higher price in local currency terms stimulates increased production in the importing country. A stronger effect likely will come from competitor countries, like Australia, whose dollar is also depreciating against the U.S. dollar. For example, Australia might become more competitive in the wheat, barley, beef, and cotton markets. Thailand is likely to offer increased competition in the Asian market for poultry parts, as it now does in sugar.

Separating the Asia fallout from other events occurring in world agricultural commodity markets is difficult. This fiscal year, large coarse grain crops in China, Eastern Europe, and Ukraine are displacing U.S. exports.

Empirically based theoretical models can control for some of these other factors, to arrive at a picture "with other things being equal." With such a tool, tempered by expert opinion, USDA's Economic Research Service (ERS) found that U.S. exports of red meat and poultry are likely to drop 5 - 6 percent in fiscal 1998 and 1999, with more impact on red meats as Australia's beef gains market share. These estimates are relative to what U.S. exports would have been had the Asian economies maintained their fast-paced growth. U.S. exports of horticultural products will be down about 4 percent. The decline in grain exports is likely to be about 2 percent in fiscal 1998. However, the effect on grains and other bulk commodities likely will be greater than 2 percent in future years, when producers and consumers globally have time to adjust to the new price and economic growth patterns.

Overall, the Asia situation likely means that U.S. agricultural exports will be down 3 - 6 percent in fiscal 1998 and 1999 from what they would have been without the Asia crisis. The estimates incorporate ERS's "best guess" as to when the Asian economies will turn around, based on events through late December.

Lower GDP growth in Asia implies lower global demand for U.S. products and services. So *U.S. economic growth* and consumer expenditures will be less than otherwise expected. Among agricultural products at the domestic retail level, this downward pressure primarily affects livestock and poultry products. Consumer demand for these products will be lower in 1998 than had been expected.

Slower paced retail demand for meat products leads to lower retail prices, which in turn lead to
lower farm prices. Farm prices for livestock and poultry will be lower than otherwise as a result. But international factors will reduce the price of feed, so the profit picture is not going to change much for livestock producers. As a result, livestock and poultry producers will leave their output close to what it would have been without the events in Asia.

Slower growth in demand for U.S. agricultural products leads to downward pressure on U.S. net farm income. USDA forecasts that net cash income in 1998 will be $52 billion compared to 1997, down 7 - 8 percent, in real terms. The "Asian financial flu" is among the factors affecting farm income prospects this year.

Demand for Farm Credit Expands in 1997

Farm debt expanded 3.6 percent in 1997. The dollar volume of farm loans outstanding expanded for all lender categories except the Farm Service Agency.

Demand for Credit Increases for Both Production and Real Estate Loans

Agricultural lenders generally found the demand for agricultural credit strengthened across the board in 1997. Total real estate and nonreal estate outstanding loan volume increased 3.6 percent. On a calendar year basis, outstanding loan volume increased last year for all lenders except the Farm Service Agency (FSA).

The demand outlook for 1998 indicates that lender competition will remain keen for high-quality farm loans. Trends in the general economy should maintain stable interest rates, which will tend to sustain farm loan demand. Both farm sector net farm and net cash incomes will decline in 1998, but farm sector equity by the end of the year will be almost $90 billion more than in 1996. But for some farmers, stable or even lower interest rates may not be sufficient to offset the joint effects of rising debt and lower net cash income. Total farm debt should increase 3-4 percent in calendar 1998.

Nonreal estate loan volume increased $3.3 billion in 1997. Some 58 percent of the growth occurred in the short- to intermediate-term nonreal estate loan portfolio, just slightly above the growth made in 1996. Outstanding nonreal estate loan volume of the FCS increased $1.06 billion, or 7.5 percent, compared with the $1.14 billion, or 3 percent, for commercial banks. Despite adequate FSA loan authority in fiscal 1997, total FSA loans outstanding are forecast to decrease 7.7 percent in calendar 1997 to $8.8 billion.

FSA made direct operating loans during fiscal 1997 of $530 million, down slightly from fiscal 1996. Total direct FSA obligations (operating, ownership, and emergency) fell 10 percent from fiscal 1996, to $745 million. Total FSA farm business loans outstanding are forecast to decrease 7-8 percent in calendar 1998, a decline similar to that reported for fiscal 1997.

Nonreal estate business loans outstanding should increase about 4 percent in 1998. Farmers are expected to spend about $185.6 billion for agricultural inputs and $164.8 billion in cash expenses in 1998, both steady from 1997. USDA forecasts price increases for most agricultural inputs in 1998. In the first two seasons under the 1996 Farm Act, farmers planted 261 million acres annually to the eight major crops (corn, sorghum, barley, oats, wheat , rice, upland cotton, and soybeans). These crops accounted for virtually all of the changes in principal crop acreage during the past 2 years. The total area planted to these crops is projected to be about the same in 1998.

In the January *Winter Wheat and Rye Seedings* report, USDA reported that the area seeded to winter wheat in the fall of 1997 totaled 46.6 million acres, down 3.6 percent from a year earlier. Producers are expected to shift the extra acres into corn, soybeans, and other crops. The initial acreage projections for other field crops will be issued in USDA's *Prospective Plantings* report, to be released on March 31.

Unit sales of farm tractors, combines, and other farm machinery were strong in 1997. Purchases of farm tractors over 40 HP totaled 75,608 units during 1997 up 13 percent from 1996. Combine purchases were up 7.2 percent to 9,662. Tractor sales are forecast to be strong again in 1998, but they may not quite reach the 1997 level. Overall demand for machinery is anticipated to be steady in 1998, but combine sales are expected to increase about 9 percent..

Strong machinery sales help maintain the demand for short- and intermediate-term farm loans. A larger share of this demand is now met by "captive" finance companies owned by the machinery companies as opposed to the more traditional institutional lenders. This debt appears in the "individuals and others" category in ERS's farm nonreal estate debt data series.

Real estate farm loan volume increased $2.4 billion in calendar 1997. Outstanding FCS real estate loans accounted for $500 million or 21.1 percent of the increase. Commercial banks gained $1.4 billion or 58.9 percent of the total. FCS long-term real estate loans increased 2.5 percent during the year ending September 30, 1997, reflecting increased demand following a period of decline or stagnation for its mortgage credit. Among life insurance companies, total lending activity was up 4.8 percent during calendar 1997.

Farm real estate loans outstanding should increase about 3 percent in 1998. Activity in the land market should create stable demand for mortgage loans (real estate credit) in 1998. Per acre U.S. farmland values increased an estimated 5.9 percent in 1997, and are expected to advance 5 percent in 1998. This will make 12 straight years (1987-98 inclusive) of U.S. farmland value increases.

Moreover, the 1994-97 increases represent the strongest yearly gains, in both nominal and real terms, since the recovery began in 1987. It is unclear. however, that the value increases have led to corresponding increases in the demand for farm mortgage credit. There are reports that a significant portion of the price gains was driven by outside nonfarm investors and not by farmers. Moreover, there are reports that many of the farmer buyers were larger operators who were able to pay in large part or in whole with cash and not via borrowing.

Farm Lenders Provide Adequate Credit Supply

All farm lender categories are able to furnish adequate credit access and credit funds.

Farm Lenders Respond to Growth in Credit Demand

Farm lenders have responded to the increased demand for loans that began in 1993. During yearend 1992-97 total farm debt grew $23.1 billion or 16.6 percent. Commercial banks led with $12.7 billion, followed by the individuals and others category with $8.4 billion, and the FCS with $5.5 billion. The increased demand for farm loans during 1992-97 affected the nonreal estate farm production loan category much more than the real estate mortgage loan category. The former rose 22.7 percent while the latter increased 11.5 percent. Total farm business debt is forecast to reach almost $168 billion by yearend 1998, the highest since 1985. The debt expansion is expected to be about $5.5 billion in 1998 and follows a projected increase in 1997 of almost $5.7 billion.

The FCS is well positioned to supply farmers' future credit needs. It has demonstrated financial strength in recent years as it underwent massive restructuring of its organization and procedures. The FCS has access to national money markets and can provide needed farm credit at competitive rates. In 1998 FCS farm business debt is forecast to increase about 3 percent, following a rise of almost 4 percent in 1997. FCS gained farm loan market share the past 3 years after a gradual loss of share the previous 12 years. FCS mortgage debt is expected to rise about 2 percent in 1997, the fourth consecutive year of gain after declines in 9 of 10 of the previous years. FCS nonreal estate loans are forecast to rise over 5 percent in 1998.

The recent growth in farm loan demand experienced by commercial banks is reflected in their loan-to-deposit ratios. Average loan-to-deposit ratios grew to 70.3 percent for agricultural banks in the year ending September 30, 1997, from 59.7 percent 4 years earlier. Average loan-to-deposit ratios reported by the Federal Reserve System for agricultural banks increased during the year ending September 30, 1997, for seven of the eight reporting Federal Reserve districts. The changes from September 1992 to September 1997 for the eight districts are: Atlanta (63.9 to 73.2 percent), Chicago (59.7 to 73), Cleveland (67 to 80.8), Dallas (45.5 to 54.3), Kansas City (53.9 to 68.6), Minneapolis (61.1 to 74.9), San Francisco (72.8 to 67.9), and St. Louis (60.8 to 72.2).

The growing demand for farm loans and increasing farm loan-to-deposit ratios at agricultural banks might be expected to have taken much of the slack out of the lending system regarding farm loans. But this has not generally been the case. High loan-to-deposit ratios do not necessarily constrain the origination of new loans. Commercial banks have many nondeposit sources of funds, and profitable, well-managed banks often have very high loan-to-deposit ratios.

Although rural banks make considerably less use of nondeposit funds than do banks headquartered in metropolitan areas, evidence shows that most rural banking markets are served by banks that use nonlocal sources of funds to some extent. Overall, adequate funds are available from banks for agricultural loans, with few banks reporting a shortage of loanable funds.

The availability of direct FSA loans to family-sized farmers unable to obtain credit elsewhere continues to fall as the agency emphasizes guaranteed loans. FSA began to emphasize guaranteed in favor of direct government loans in the early 1980s. FSA held only 5.4 percent of all farm business debt in 1997, down from 16.3 percent in 1987, and its current $8.8-billion loan portfolio should continue to decline for the foreseeable future.

FSA's authority to guarantee loans made by commercial and cooperative lenders will be down 11.6 percent in fiscal 1998. Loan guarantees totaling $1.57 billion were issued in fiscal 1997, down 14.9 percent from fiscal 1996. FSA loan demand in 1998 is difficult to predict because it depends in part on the extent of adverse weather as well as on economic conditions that affect the farm sector. SBA-guaranteed farm business loans also have increased in recent years, somewhat lessening the demand for FSA guaranteed loans.

Among life insurance companies, total farm lending activity was up 4.8 percent in 1997. During 1985-95 total industry farm mortgage holdings actually declined in 6 of the 11 years for an overall drop of 19.4 percent, so the recent increases are significant. Life insurance companies report adequate funds for the deals that meet their quality standards. Their farm lending is forecast to increase about 5 percent in 1998.

Creditworthy farmers should have access to loans in 1998, mostly from commercial banks and the FCS, the largest suppliers. Banks' loan-to-deposit ratios, despite some recent increases, reflect liquidity to meet increased credit needs. The FCS is offering farm customers competitive interest rates and credit arrangements in an effort to enhance loan quality and expand market share. Total life insurance company lending is expected to be quite strong in 1998. Lending by individuals and others will increase about 5 percent. Farmers will need to demonstrate adequate cash flow, and some marginal farm operators and beginning farmers will continue to face credit access problems.

The Changing Tax Burden of Farmers

by Ron Durst and James Monke[1]

Farmers' most important tax burdens are Federal income taxes, social security taxes, State and local income and property taxes, and Federal estate taxes. Recent tax law changes have reduced farmers' overall tax burden and, consequently, have increased farmers' share of income available for debt repayment, investment, or personal consumption. Income taxes are expected to fall following Federal tax legislation enacted during 1997. Property taxes continue to rise overall, but are stable to decreasing relative to market values. Although social security taxes continue to rise, the increase is expected to be smaller than the reduction in other taxes and is slowed by continued low levels of taxable self-employment income from farming.

Introduction

Farmers, like other taxpayers, are subject to a variety of taxes at all levels of government. At the Federal level these include income taxes, social security and self-employment taxes, and estate and gift taxes. In 1994, the most recent year for which complete tax data are available, farmers paid nearly $16 billion in Federal income taxes on both their farm and nonfarm income – more than for any other type of tax (figure A-1). Social security taxes represented the second highest tax burden at $9.7 billion, which included $7.9 billion for the employer's and employee's share of the payroll tax on wages and $1.8 billion in self-employment taxes. In contrast, Federal estate and gift taxes were relatively small with taxes on farm estates estimated at only about $500 million.

At the State and local level, the most significant taxes include income taxes and farm real estate and other property taxes. Property taxes on farm real estate, dwellings, and personal property exceeded $5.1 billion in 1994. State and local income taxes were estimated to be nearly $3.9 billion.

Combined, these Federal, State, and local taxes totaled $35.2 billion on nearly $105 billion of expanded income (see box). Trends in the levels of these taxes can significantly affect the funds available for debt repayment, reinvestment in the farm business, or farm household consumption. Recent legislative and other tax developments, especially the Taxpayer Relief Act of 1997, suggest that farmers will have a larger share of their farm and other income available for such purposes. The relative importance of the various taxes may differ for individual farmers because of income levels, asset ownership, or specific State tax laws, but these taxes are clearly the most significant for farmers as a group. Farmers also pay a variety of other taxes such as excise taxes, corporate income taxes, and retail sales taxes, but these taxes are either relatively minor or not significant for the vast majority of farmers.

Federal Income Taxation

From shortly after its introduction in 1913, the Federal income tax has been the most important tax on agriculture. Throughout its history, numerous changes have affected not only the total tax burden but the distribution of the burden among various income levels.

In recent years, changing tax laws have brought about increasing rates overall but have reduced tax burdens on lower-income farmers. The average effective Federal income tax rate for all farmers was 16 percent in 1994, compared with just over 15 percent in 1990 and nearly 14 percent in 1987. Average effective tax rates equal the income tax paid divided by expanded income. Most farmers, however, have incomes that allow them to pay less in taxes than the aggregate rate suggests. About 80 percent of farmers have income of less than $60,000 and pay an average effective Federal income tax rate of less than 10 percent.

Legislation in 1986 comprehensively altered the tax structure by expanding the tax base and by eliminating many personal and business exclusions, deductions, and credits. The marginal tax rate structure was simplified from 14 brackets (ranging from 11 percent to 50 percent) to eventually only three brackets in 1991 (ranging from 15 percent to 31 percent). Farmers lost several important tax benefits because both the 60-percent exclusion for long-term capital gains and the investment tax credit were eliminated. Depreciation schedules were replaced with slower cost recovery alternatives that do not reduce taxable income as much in the early years. Analysis of IRS data indicates that Federal income taxes for farmers effectively became slightly less progressive from 1987 to 1990. Average effective tax rates for those with more than $200,000 in income decreased from about 25 percent to 21 percent, while rates for lower-income taxpayers did not change significantly (Compson and Durst, 1992).

Two new tax brackets for high-income taxpayers were added in 1993, increasing the maximum marginal tax rate from 31 percent to 39.6 percent. These higher rates affected less than 3 percent of farm sole proprietors (Compson and Durst, 1993). For low-income households, the earned income tax credit was expanded in 1990 and 1993 by increasing the benefit levels and simplifying eligibility rules. The credit provides benefits to nearly 12 percent of all farmers. Analysis of IRS data from 1990 to 1994 confirms that average effective tax rates became

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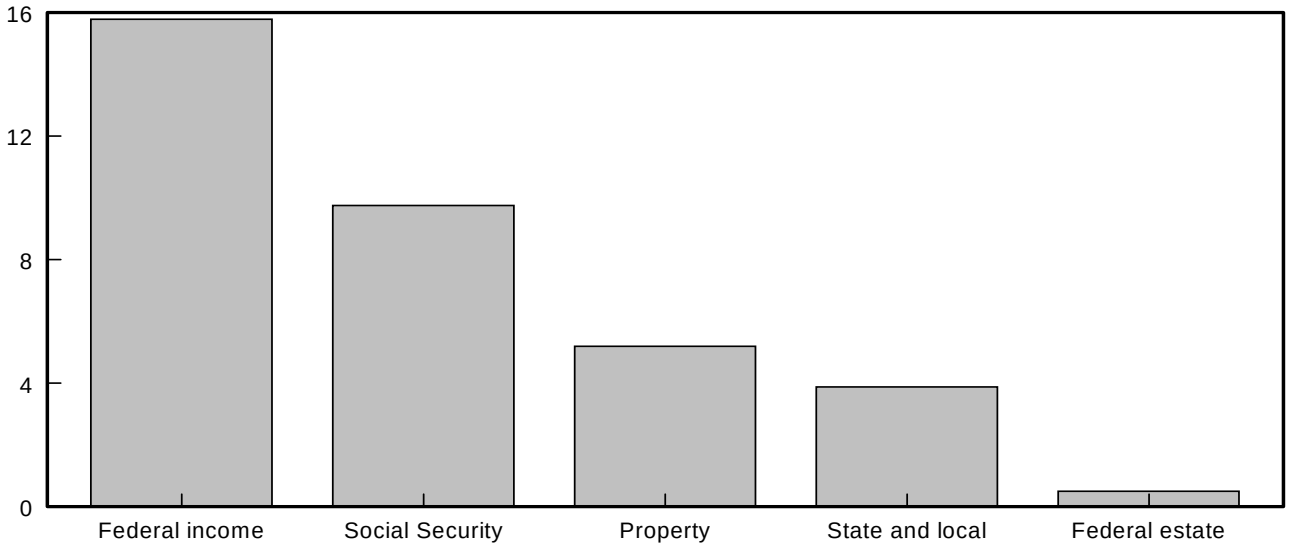
Figure A-1

Taxes paid by all farmers, 1994

$ billion



Source and definitions of tax data

Income and social security tax data were compiled from the IRS Individual Public Use Tax Files from 1987 to 1994, the most recent year available (Internal Revenue Service). The database is an annual sample of tax returns (including those from over 6,000 returns filing Schedule F and identified as farm sole proprietors), weighted to represent the aggregate population of taxpayers and stripped of any information that could be used to identify specific taxpayers. The data do not include income reported by corporate farms, but this amount is comparatively small overall. Property tax estimates are compiled from data published in *Agricultural Resources and Environmental Indicators* (USDA-ERS, 1996, 1997) and USDA's Farm Costs and Returns Survey (FCRS). Estate tax data were simulated using balance sheet information from the FCRS (Maxwell).

Federal income taxes are defined as the Federal income tax after all credits, including the earned income tax credit (EIC), are subtracted. Because the earned income tax credit is refundable, Federal income taxes may be negative. State income tax liabilities were estimated from itemized deductions claimed for Federal income taxes, adjusted for the proportion of taxpayers who itemize deductions (estimated over many intervals of income).

Income references throughout the paper use a definition of "expanded income" applicable to tax analysis. Adjusted gross income (AGI), a legal definition for taxes, does not necessarily measure economic income accurately. Expanded income is computed from AGI by adding tax-deductible contributions to retirement accounts, nontaxable pension or social security benefits, tax-exempt interest income, and the employer's share of social security taxes. An amount is also subtracted for expenses such as investment interest, moving expenses, unreimbursed employee business expenses, and passive losses that are not allowed for tax purposes. Average effective tax rates are computed by dividing the amount of tax paid by expanded income.

more progressive -- increasing for high-income taxpayers because of the new tax brackets, and decreasing for low-income taxpayers following the expansion of the earned income tax credit.

The Taxpayer Relief Act of 1997 brought about the most significant tax reforms since 1986 by providing targeted tax relief to many groups, including farmers. Overall, farmers' total Federal income tax burdens are expected to decrease about $1.6 billion per year, or about 10 percent, with benefits accruing at all income levels (Durst and Monke). Farm households will pay less tax because of provisions aimed at children, education, and retirement savings. A new child tax credit allows taxpayers to directly reduce their income tax by $500 ($400 in 1998) for each dependent under 17, or on average about $800 per eligible farm family. Higher education is also promoted by two new nonrefundable education tax credits, deductible student loan interest, and new tax-exempt savings accounts for education. Opportunities to contribute to individual retirement accounts are expanded. The Act also increases the proportion of health insurance premiums that self-employed farmers may deduct.

Capital gains tax rates were also reduced in 1997. For higher income taxpayers, the rate was reduced from 28 percent to 20 percent. Taxpayers in the 15-percent bracket now pay a 10-percent long-term capital gains tax. This provision is especially important for farmers who, according to IRS data,

are three times more likely than other taxpayers to report capital gains. Farmers will also benefit from added flexibility to deal with income fluctuations by income averaging, using deferred payment contracts, or by deferring the gain on certain weather-related livestock sales. The child and education tax credits will be more beneficial to lower income households. On the other hand, most of the capital gains benefits will go to a relatively smaller group of higher income farmers.

The improving Federal budget outlook, particularly the expectation of a balanced budget or surplus, has prompted a number of proposals for further income tax reductions. Any tax increases in the near term will most likely involve narrowly targeted provisions aimed at closing tax loopholes, with little or no effect on most farmers.

Social Security and Self-employment Taxes

Social security taxes include two components: the payroll tax on wage and salary income, and self-employment taxes on the net income from sole proprietorships. Farmers pay self-employment taxes on their net farm income from Schedule F, on partnership income, and on net income from any nonfarm businesses. Farmers or spouses with off-farm employment pay payroll taxes on their wages. Social security tax burdens have risen dramatically over recent decades because of increases in both the tax rate and the amount of income subject to taxation. The most recent rate increases stem from a decade of legislation, beginning with the Social Security Amendments of 1983.

Unlike Federal income taxes which are progressive, the social security tax is a flat rate with a maximum taxable amount. In 1987, the total payroll tax on wage income was 14.3 percent and the maximum amount of earnings subject to the tax was $43,800. An income tax credit reduced the effective self-employment tax rate to 12.3 percent. By 1990, the tax rate had increased to its current level of 15.3 percent (7.65 percent for both the employer and employee), and maximum earnings subject to taxation were $51,300. The tax credit was replaced with an income tax deduction for one-half of the self-employment tax, and a 7.65-percent self-employment tax exemption made the tax more comparable to social security taxes on wage and salary income.

Social security taxes increased again in 1991 when a separate, higher earnings cap was created for the Medicare hospital insurance (HI) portion of the tax. Previously, a single earnings cap applied to both the HI portion and the old-age, survivor disability insurance (OASDI) tax. The earnings cap for the 2.9-percent HI tax (1.45 percent for both the employer and employee) more than doubled from the OASDI cap and increased from $125,000 in 1991 to $135,000 in 1993. The HI cap was removed completely in 1994, making all self-employment income subject to the 2.9-percent tax. While only about 1 percent of farm sole proprietors had wage or self-employment income above the higher HI cap, its removal exacerbated the overall increase in social security tax burdens. The earnings cap for OASDI during 1998 is $68,400.

In 1994, the average effective social security tax rate for all farmers was 10 percent, up from only 7.6 percent in 1987. Effective rates continue to be regressive and range from nearly 14 percent for farmers with income less than $10,000 to only 2.6 percent for farmers with income greater than $200,000. Figure A-2 illustrates how Federal tax burdens vary with household income. Although the average effective income tax rate is fairly progressive, the regressive structure of the social security tax makes the total Federal tax essentially progressive only through $100,000 of income. This overall pattern has not changed much since 1987 because of the offsetting trends in income and social security taxes.

On average, farmers earning less than $60,000 paid more in social security taxes than in Federal income taxes. This group, which represented about 80 percent of all farmers in 1994, paid an average $3,400 in social security taxes and $1,900 in Federal income taxes. For all farmers, average Federal income taxes were $7,400 and social security taxes were $4,600. Average effective income tax rates tend to decrease over time because progressive tax brackets are indexed for inflation. But average effective social security tax rates have continued to increase because the taxable cap for OASDI rises with inflation.

Despite the increasing trend in total social security taxes paid, farmers' self-employment taxes have remained relatively flat. This is because an increasing proportion of farm households is paying payroll taxes, while fewer farms are reporting taxable farm profits. IRS data indicate that each year since 1980 farmers in the aggregate have reported negative net farm income for taxes. The total amount of net farm losses has grown annually from 1990 through 1995, reversing a recovery that started in 1984 (figure A-3). The proportion of farm sole proprietors reporting a net farm loss on Schedule F also has been increasing, with around 67 percent of farms reporting losses in 1995, compared with 56 percent in 1989.

Accelerated depreciation and other tax deductions have contributed to farmers' likelihood of reporting taxable farm losses, both during and after agriculture's poor financial performance in the mid-1980s. As a consequence, Federal taxes paid on aggregate net farm income have been low and have even decreased recently. This is reflected in the amount of self-employment taxes paid by farmers. The future trend in net farm income for tax purposes is uncertain, given the accounting differences between taxable net farm income and USDA's estimates of net income for the farming sector.

Federal Estate and Gift Taxes

The current Federal estate and gift tax system applies a unified tax rate structure and a cumulative lifetime credit to gifts and transfers of money or other property at death. Under the system, individuals can transfer a specified amount ($600,000 in 1997) in cash and other property without Federal estate or gift tax liability as a result of the unified lifetime credit. All transfers to one's spouse and gifts of up to $10,000 annually to any individual are also exempt from tax. Transfers in excess of the exempt amount are taxed on a graduated scale that begins at 37 percent, and rises to a maximum rate of 55 percent on taxable estates above $3 million.

Federal estate and gift taxes are important taxes for farmers even though they are not levied on an annual basis and most farmers never pay such taxes during their lifetime. These

Figure A-2

Effective tax rates for farmers, 1994

Percent

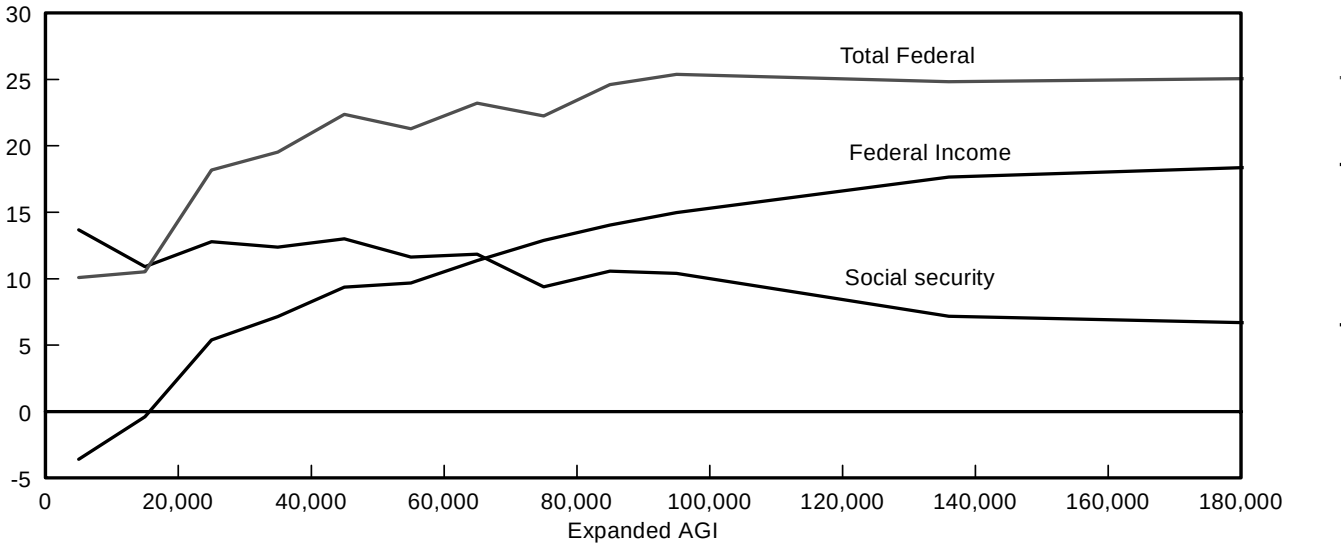
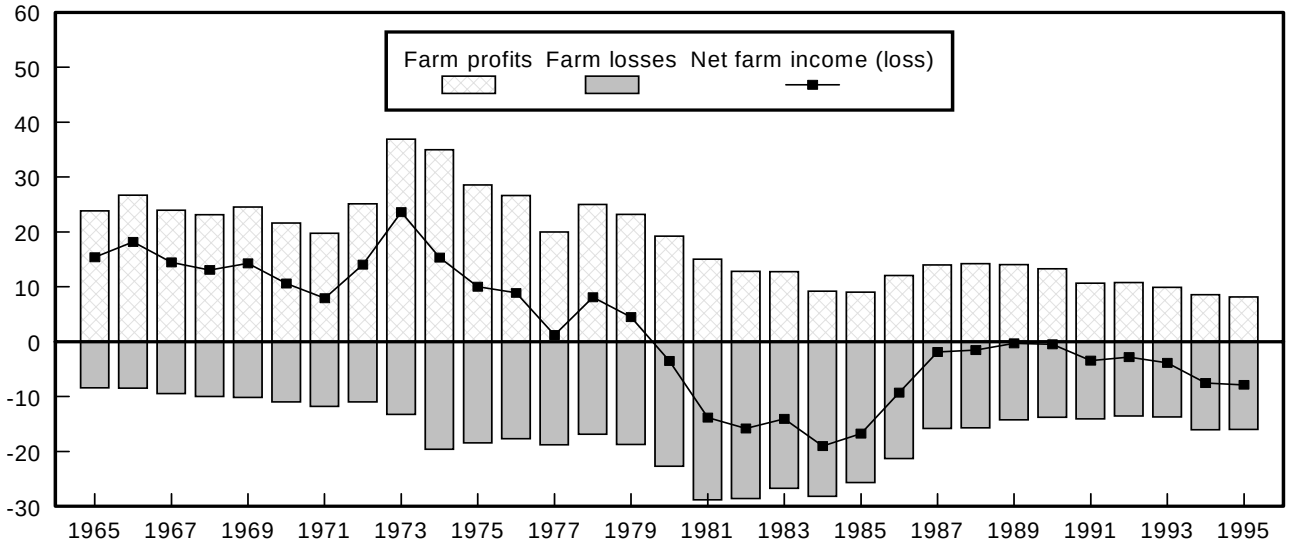


Figure A-3

Farm profits and losses on Schedule F

Billion 1995 dollars



taxes have historically represented a relatively small share of total Federal tax revenues, only about 1 percent. However, while their aggregate importance may be small relative to other Federal revenue sources, the potential impact of these taxes on an individual or group of individuals such as farmers can be substantial.

Over the years, increasing farm size and appreciating land values have increased farm estate values and taxes. In the 1970s, Congress enacted two special provisions out of concern that Federal estate taxes might force some family farms to liquidate. The first was special use valuation which allows farmland to be valued at its farm value rather than its fair market value. The second provision was the installment payment of estate taxes, which permits payments over 14-years rather than in full within 9 months of death. Despite the availability of special use valuation, which often reduces the value of farmland for estate tax purposes by about half, a relatively large share of farmers continues to owe taxes. An estimated 6 percent of farm estates owe Federal estate taxes, compared with just over 1 percent of all estates. A higher percentage of commercial farm estates pay such taxes, with an estimated 14 percent owing Federal estate taxes in 1994. While most farm estates continue to be exempt from the tax, the average tax liability for those with sufficient net worth to be subject to the tax can be quite large. In 1994, the average Federal estate tax for all taxable farm estates was estimated at about $285,000 on an average net worth of $1,587,000 for an average tax rate of 18 percent (Maxwell).

The number of estates required to file a return and pay Federal estate taxes is largely determined by the unified credit, which provides a basic exemption. Because the credit had not been changed since 1987, its real value had declined by about one-third. As a result, the number of farmers and other taxpayers required to file a return and pay taxes had increased steadily since 1988.

Continued concern for the effects of Federal estate taxes on farms and small businesses provided the primary impetus for the changes to Federal estate and gift tax laws in the 1997 Act. The changes are especially important for farmers and other small business owners who hold significant amounts of wealth in business assets. The Act substantially increases the size of farms that can be transferred tax-free and makes important changes to the special use valuation and installment payment provisions. These changes will make it easier to transfer the family farm across generations by reducing the likelihood that the farm or some of its assets will need to be sold to pay estate taxes.

Specifically, the Act gradually increases the unified credit to shield $1 million from estate tax by 2006. Beginning in 1998, the Act also provides a new exclusion for the first $675,000 of value in a qualified family-owned business interest. The exclusion is in addition to any benefits from special use valuation and the unified credit, but the total amount excluded by this provision and the unified credit is limited to $1.3 million.

The Act also makes some important changes to the special use valuation provision. The current $750,000 cap on the reduction in value allowable under the special use value provision will be indexed for inflation beginning in 1999. Only about 10 percent of farms electing special use valuation are affected by the cap and are most likely larger farms near urban areas where development pressure is the greatest. Adjusting the cap for inflation will ensure that most farms will continue to be unaffected by the cap.

The Act also directly addresses the liquidity problem potentially faced by farms and other small businesses that hold significant amounts of wealth in the form of business assets. The Act does this by making several important changes to the installment payment provision, including lowering the interest rate on taxes due from 4 to 2 percent and raising the amount eligible for the new lower interest rate.

The overall effect of the 1997 changes to Federal estate and gift tax policies is a reduction in the number of taxable farm estates by about 40 percent. Total Federal estate taxes due are estimated to drop about one-third or between $150 and $200 million. Thus, fewer farmers will be required to file a return or to pay taxes, while those required to pay will owe less tax and many will be eligible for more favorable payment terms. The cost of this reduced tax burden is added complexity for the relatively small number of farmers that will be required to file a return and pay taxes in future years due to the eligibility requirements for the various provisions.

State and Local Taxes

State and local governments rely upon a variety of taxes for funding, including individual and corporate income taxes, sales taxes, and real estate and personal property taxes. In recent years, there has been a shift away from State and local governments' reliance on property taxes. While this has made State tax systems less regressive and has reduced the fiscal disparities among local governments, it has increased reliance on other State-level taxes such as sales and income taxes. Despite this increased reliance, these taxes remain of secondary importance to farmers. Sales tax rates vary widely from State to State. Also, purchases of farm inputs are often exempt from retail sales taxes.

Because most farms are operated as sole proprietors, partnerships, small business corporations (Subchapter S corporations), or limited liability companies, most farm income is taxed under the individual income tax structures rather than the corporate income tax. Forty-three States have an individual income tax. The rates vary widely and in most instances are well below Federal individual income tax rates. Nevertheless, farmers paid an estimated $3.9 billion in State and local income taxes in 1994. The effective State income tax rate for all farmers was estimated to be nearly 4 percent in 1994 and was fairly constant across all income levels.

Given the level of investment in land and other capital assets required for modern farming operations, it is not surprising that property taxes, especially real estate taxes, are the most important State and local tax paid by farmers. Farm real estate taxes are levied by local governments on farmland and improvements, including buildings. These taxes vary widely by State depending upon the degree that the local governments rely on real estate taxes as a source of revenue and the extent to which the State provides relief through preferential land-use

assessment. All States currently have some form of preferential or deferred land-use assessment for farmland. State land-use laws generally provide that farmland devoted to farming be assessed on the basis of its value for farming rather than its fair market value. The laws vary in their valuation methods, their acreage requirements, the minimum number of years the land must be in farming, the percentage of annual income the landowner must receive from the land, and penalties for converting the land to a nonfarm use (USDA-ERS, 1997). Assessment on the basis of farm value is especially important in areas where urban sprawl has pushed farmland prices well above the value for farming purposes.

In recent years the trend in farm real estate taxes has been for higher total taxes. In 1996, farmers paid an estimated $4.4 billion in farm real estate taxes. This represented an average of $5.66 per acre, up nearly $1.00 since 1990. However, because of the larger increase in farmland values, the tax rate per $100 of market value actually declined slightly, with the average dropping from $0.69 in 1990 to $0.64 in 1996. This trend of increasing total taxes, increasing taxes per acre, and relatively stable or slightly decreasing taxes per $100 of market value is likely to continue as long as farmland values continue to increase and State and local governments shift away from their reliance on property taxes.

While farmers' most important property taxes are farm real estate taxes, a number of States also levy taxes on other business assets including farm machinery, equipment, livestock, and farm vehicles. Although these personal property taxes are generally based on the assets' market value, the actual value on which the tax is assessed is frequently well below the market value. Also, there are a number of States that levy no personal property taxes or exclude certain farm business assets from the tax base. As a result, personal property taxes paid on farm business assets in 1996 totaled only about $500 million.

The clear trend in State and local taxation is for further reductions in tax burdens. Some 44 States have cut taxes at least once in the last 3 years (National Conference of State Legislatures, 1997a, b). The continued strong economy in 1998 is expected to generate additional surpluses that will permit further reductions in State and local taxes. Finally, because of the 1997 Act, State taxes will automatically drop in those States that use Federal taxable income as the basis for their State income tax.

Summary and Conclusions

Farmers paid about $26 billion in Federal individual income taxes, payroll taxes, and estate and gift taxes in 1994. They paid an additional $9 billion in State and local income and property taxes. Trends in the level of these taxes are important to farmers' financial position. Recent developments suggest that most farmers will retain a larger share of both their farm and nonfarm income. The Taxpayer Relief Act of 1997 will provide significant reductions in Federal income and estate taxes. Federal income taxes are expected to fall by an estimated $1.6 billion or 10 percent, while estate and gift taxes should decrease by about one-third. While social security taxes, including self-employment taxes, are expected to continue to increase, the increase should be limited by the low level of taxable self-employment income from farming. At the State and local level, the shift away from the reliance on property taxes should limit future increases in farm real estate taxes while the continued strong economy and resulting State surpluses will permit additional reductions in both State and local income and property taxes.

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Appendix table 1—Total farm business debt by lender, December 31, 1980-97

	Debt owed to reporting institutions						
	Farm Credit System	Commercial banks	Farm Service Agency	Life insurance companies	Total	Individuals and others 1/	Total debt
				Million dollars			
1980	52,974	37,751	17,464	11,998	120,188	46,636	166,824
1981	61,566	38,798	20,802	12,150	133,316	49,065	182,381
1982	64,220	41,890	21,274	11,829	139,214	49,592	188,806
1983	63,710	45,422	21,428	11,668	142,228	48,842	191,070
1984	64,688	47,245	23,262	11,891	147,086	46,701	193,787
1985	56,169	44,470	24,535	11,273	136,447	41,152	177,599
1986	45,909	41,621	24,138	10,377	122,044	34,926	156,970
1987	40,030	41,130	23,553	9,355	114,069	30,342	144,411
1988	37,211	42,742	21,879	9,039	110,873	28,694	139,567
1989	36,440	44,929	19,047	9,113	109,529	28,330	137,859
1990	35,773	47,556	17,014	9,704	110,046	27,916	137,962
1991	35,527	50,271	15,253	9,546	110,598	28,620	139,218
1992	35,753	51,669	13,538	8,765	109,725	29,327	139,052
1993	35,441	54,535	12,077	8,986	111,039	30,930	141,970
1994	35,777	57,809	11,485	9,025	114,096	32,703	146,799
1995	37,324	60,025	10,147	9,092	116,588	34,182	150,769
1996	39,740	61,869	9,519	9,469	120,597	35,925	156,523
1997P	41,300	64,413	8,786	9,921	124,420	37,766	162,187
				Percent change in year			
1980	16.7	1.7	20.9	6.4	11.1	7.6	10.1
1981	16.2	2.8	19.1	1.3	10.9	5.2	9.3
1982	4.3	8.0	2.2	-2.6	4.4	1.1	3.5
1983	-0.8	8.4	0.7	-1.4	2.2	-1.5	1.2
1984	1.5	4.0	8.6	1.9	3.4	-4.4	1.4
1985	-13.2	-5.9	5.5	-5.2	-7.2	-11.9	-8.4
1986	-18.3	-6.4	-1.6	-8.0	-10.6	-15.1	-11.6
1987	-12.8	-1.2	-2.4	-9.8	-6.5	-13.1	-8.0
1988	-7.0	3.9	-7.1	-3.4	-2.8	-5.4	-3.4
1989	-2.1	5.1	-12.9	0.8	-1.2	-1.2	-1.2
1990	-1.8	5.8	-10.7	6.5	0.5	-1.4	0.1
1991	-0.7	5.7	-10.3	-1.6	0.5	2.5	0.9
1992	0.6	2.8	-11.2	-8.2	-0.8	2.5	-0.1
1993	-0.9	5.6	-10.8	2.5	1.2	5.5	2.1
1994	1.0	6.0	-4.9	0.4	2.8	5.7	3.4
1995	4.3	3.8	-11.7	0.7	2.2	4.5	2.7
1996	6.5	3.1	-6.2	4.2	3.4	5.1	3.8
1997P	3.9	4.1	-7.7	4.8	3.2	5.1	3.6
				Percentage distribution of total debt			
1980	31.8	22.6	10.5	7.2	72.0	28.0	100.0
1981	33.8	21.3	11.4	6.7	73.1	26.9	100.0
1982	34.0	22.2	11.3	6.3	73.7	26.3	100.0
1983	33.3	23.8	11.2	6.1	74.4	25.6	100.0
1984	33.4	24.4	12.0	6.1	75.9	24.1	100.0
1985	31.6	25.0	13.8	6.3	76.8	23.2	100.0
1986	29.2	26.5	15.4	6.6	77.7	22.3	100.0
1987	27.7	28.5	16.3	6.5	79.0	21.0	100.0
1988	26.7	30.6	15.7	6.5	79.5	20.5	100.0
1989	26.4	32.6	13.8	6.6	79.5	20.5	100.0
1990	25.9	34.5	12.3	7.0	79.8	20.2	100.0
1991	25.5	36.1	11.0	6.9	79.4	20.6	100.0
1992	25.7	37.2	9.7	6.3	78.9	21.1	100.0
1993	25.0	38.4	8.5	6.3	78.2	21.8	100.0
1994	24.4	39.4	7.8	6.2	77.7	22.3	100.0
1995	24.8	39.8	6.7	6.1	77.3	22.7	100.0
1996	25.4	39.5	6.1	6.1	77.1	23.1	100.0
1997P	25.5	39.7	5.4	6.1	76.7	23.3	100.0

P = Preliminary. 1/ Includes land for contract, merchants' and dealers' credit, etc., CCC storage and drying facilities loans, and Farmer Mac loans.

Appendix table 2—Real estate farm business debt by lender, December 31, 1980-97

	Debt owed to reporting institutions							
	Farm Credit System	Farm Service Agency	Life insurance companies	Commercial banks	Total	Individuals and others 1/	CCC storage and drying facilities	Total real estate
				Million dollars				
1980	33,225	7,435	11,998	7,765	60,423	27,813	1,456	89,692
1981	40,298	8,096	12,150	7,584	68,128	29,318	1,342	98,788
1982	43,661	8,298	11,829	7,568	71,357	29,326	1,127	101,810
1983	44,318	8,573	11,668	8,347	72,906	29,388	888	103,182
1984	46,596	9,523	11,891	9,626	77,636	28,438	623	106,697
1985	42,169	9,821	11,273	10,732	73,994	25,775	307	100,076
1986	35,593	9,713	10,377	11,942	67,725	22,660	123	90,408
1987	30,646	9,430	9,355	13,541	62,972	19,380	46	82,398
1988	28,445	8,980	9,039	14,434	60,898	16,914	21	77,833
1989	26,896	8,203	9,113	15,685	59,898	16,068	12	75,978
1990	25,924	7,639	9,704	16,288	59,556	15,169	7	74,732
1991	25,305	7,041	9,546	17,417	59,308	15,632	4	74,944
1992	25,408	6,394	8,765	18,757	59,324	16,095	2	75,421
1993	24,902	5,838	8,986	19,596	59,322	16,720	0	76,043
1994	24,597	5,465	9,025	21,079	60,166	17,513	0	77,679
1995	24,851	5,055	9,092	22,277	61,275	18,012	0	79,287
1996	25,725	4,654	9,469	23,394	63,242	18,481	0	81,724
1997P	26,228	4,210	9,921	24,798	65,157	18,950	0	84,108
				Percent change in year				
1980	21.6	18.9	6.4	-0.4	14.8	8.4	4.7	12.5
1981	21.3	8.9	1.3	-2.3	12.8	5.4	-7.8	10.1
1982	8.3	2.5	-2.6	-0.2	4.7	0.0	-16.0	3.1
1983	1.5	3.3	-1.4	10.3	2.2	0.2	-21.2	1.3
1984	5.1	11.1	1.9	15.3	6.5	-3.2	-29.8	3.4
1985	-9.5	3.1	-5.2	11.5	-4.7	-9.4	-50.7	-6.2
1986	-15.6	-1.1	-7.9	11.3	-8.5	-12.1	-59.9	-9.7
1987	-13.9	-2.9	-9.8	13.4	-7.0	-14.5	-62.6	-8.9
1988	-7.2	-4.8	-3.4	6.6	-3.3	-12.7	-54.9	-5.5
1989	-5.4	-8.6	0.8	8.7	-1.6	-5.0	-43.9	-2.4
1990	-3.6	-6.9	6.5	3.8	-0.6	-5.6	-43.8	-1.6
1991	-2.4	-7.8	-1.6	6.9	-0.4	3.0	-41.8	0.3
1992	0.4	-9.2	-8.2	7.7	0.0	3.0	-47.6	0.6
1993	-2.0	-8.7	2.5	4.5	0.0	3.9	-100.0	0.8
1994	-1.2	-6.4	0.4	7.6	1.4	4.7	0.0	2.2
1995	1.0	-7.5	0.7	5.7	1.8	2.9	0.0	2.1
1996	3.5	-7.9	4.2	5.0	3.2	2.6	0.0	3.1
1997P	2.0	-9.5	4.8	6.0	3.0	2.5	0.0	2.9
				Percentage distribution of debt				
1980	37.0	8.3	13.4	8.7	67.4	31.0	1.6	100.0
1981	40.8	8.2	12.3	7.7	69.0	29.7	1.4	100.0
1982	42.9	8.2	11.6	7.4	70.1	28.8	1.1	100.0
1983	43.0	8.3	11.3	8.1	70.7	28.5	0.9	100.0
1984	43.7	8.9	11.1	9.0	72.8	26.7	0.6	100.0
1985	42.1	9.8	11.3	10.7	73.9	25.8	0.3	100.0
1986	39.4	10.7	11.5	13.2	74.8	25.1	0.1	100.0
1987	37.2	11.4	11.4	16.4	76.4	23.5	0.1	100.0
1988	36.5	11.5	11.6	18.5	78.2	21.7	0.0	100.0
1989	35.4	10.8	12.0	20.6	78.8	21.1	0.0	100.0
1990	34.7	10.2	13.0	21.8	79.6	20.3	0.0	100.0
1991	33.8	9.4	12.7	23.2	79.1	20.9	0.0	100.0
1992	33.7	8.5	11.6	24.9	78.7	21.3	0.0	100.0
1993	32.8	7.7	11.8	25.8	78.0	22.0	0.0	100.0
1994	31.7	7.0	11.6	27.1	77.5	22.5	0.0	100.0
1995	31.3	6.4	11.5	28.1	77.3	22.7	0.0	100.0
1996	31.5	5.7	11.6	28.6	77.4	22.6	0.0	100.0
1997P	31.2	5.0	11.8	29.5	77.5	22.5	0.0	100.0

P = Preliminary 1/ Including Farmer Mac loans.

Appendix table 3—Nonreal estate farm business debt by lender, December 31, 1980-97

	Debt owed to reporting institutions						
	Commercial banks	Farm Credit System	Farm Service Agency	Total	Individuals and others	Total nonreal estate	CCC crop loans
				Million dollars			
1980	29,986	19,750	10,029	59,765	17,367	77,132	3,836
1981	31,215	21,268	12,706	65,189	18,404	83,593	6,888
1982	34,322	20,558	12,977	67,857	19,139	86,996	15,204
1983	37,075	19,392	12,855	69,322	18,566	87,888	10,576
1984	37,619	18,092	13,740	69,451	17,640	87,091	8,428
1985	33,738	14,001	14,714	62,453	15,070	77,523	17,598
1986	29,678	10,317	14,425	54,420	12,143	66,563	19,190
1987	27,589	9,384	14,123	51,096	10,916	62,012	15,120
1988	28,309	8,766	12,899	49,974	11,760	61,734	8,902
1989	29,243	9,544	10,843	49,631	12,250	61,881	5,225
1990	31,267	9,848	9,374	50,490	12,740	63,230	4,377
1991	32,854	10,222	8,213	51,289	12,985	64,274	3,579
1992	32,912	10,346	7,143	51,401	13,230	63,631	4,771
1993	34,939	10,540	6,239	51,717	14,210	65,927	3,170
1994	36,730	11,180	6,020	53,930	15,190	69,120	6,237
1995	37,748	12,472	5,092	55,312	16,170	71,482	2,979
1996	38,475	14,015	4,865	57,355	17,444	74,799	2,000
1997P	39,615	15,072	4,576	59,263	18,816	78,079	1,000
				Percent change in year			
1980	2.2	9.4	22.5	7.6	6.7	7.4	3.3
1981	4.1	7.7	26.7	9.1	6.0	8.4	79.6
1982	10.0	-3.3	2.1	4.1	4.0	4.1	120.7
1983	8.0	-5.7	-0.9	2.2	-3.0	1.0	-30.4
1984	1.5	-6.7	6.9	0.2	-5.0	-0.9	-20.3
1985	-10.3	-22.6	7.1	-10.1	-14.6	-11.0	108.8
1986	-12.0	-26.3	-2.0	-12.9	-19.4	-14.1	9.0
1987	-7.0	-9.0	-2.1	-6.1	-10.1	-6.8	-21.2
1988	2.6	-6.6	-8.7	-2.2	7.7	-0.4	-41.1
1989	3.3	8.9	-15.9	-0.7	4.2	0.2	-41.3
1990	6.9	3.2	-13.5	1.7	4.0	2.2	-16.2
1991	5.1	3.8	-12.4	1.6	1.9	1.7	-18.2
1992	0.2	1.2	-13.0	0.2	1.9	-1.0	33.3
1993	6.2	1.9	-12.7	0.1	7.4	3.6	-33.6
1994	5.1	6.1	-3.5	4.3	6.9	4.8	96.8
1995	2.7	11.6	-15.4	2.6	6.5	3.4	-52.2
1996	1.9	12.2	-4.5	3.7	7.9	4.6	-32.9
1997P	3.0	7.5	-5.9	3.3	7.9	4.4	-50.0
				Percentage distribution of debt			
1980	38.9	25.6	13.0	77.5	22.5	100.0	
1981	37.3	25.4	15.2	78.0	22.0	100.0	
1982	39.5	23.6	14.9	78.0	22.0	100.0	
1983	42.2	22.1	14.6	78.9	21.1	100.0	
1984	43.2	20.8	15.8	79.7	20.3	100.0	
1985	43.5	18.1	19.0	80.6	19.4	100.0	
1986	44.6	15.5	21.7	81.8	18.2	100.0	
1987	44.5	15.1	22.8	82.4	17.6	100.0	
1988	45.9	14.2	20.9	81.0	19.0	100.0	
1989	47.3	15.4	17.5	80.2	19.8	100.0	
1990	49.5	15.6	14.8	79.8	20.1	100.0	
1991	51.1	15.9	12.8	79.8	20.2	100.0	
1992	51.7	16.3	11.2	79.5	20.8	100.0	
1993	53.0	16.0	9.5	78.4	21.6	100.0	
1994	53.1	16.2	8.7	78.0	22.0	100.0	
1995	52.8	17.5	7.1	77.4	22.6	100.0	
1996	51.4	18.7	6.5	76.7	23.3	100.0	
1997P	50.7	19.3	5.9	75.9	24.1	100.0	

P = Preliminary

Appendix table 4—Interest rates on short- and intermediate-term loans, 1960-97

Year	Prime rate	6-month T-Bill 1/	Agricultural nonreal estate						
			Commercial banks			Farm Credit System	FSA 2/		Average on outstanding debt 3/
			All banks	Large banks	Other banks		Regular	Limited resource	
			Percent						
1960	4.82	NA	NA	NA	NA	NA	5.00	NA	6.58
1965	4.54	NA	NA	NA	NA	NA	5.00	NA	6.38
1970	7.91	6.87	NA	NA	NA	9.45	6.88	NA	7.84
1975	7.86	6.39	NA	NA	NA	9.11	8.63	NA	8.21
1980	15.27	12.39	15.20	16.70	15.00	12.74	11.00	6.82	11.70
1981	18.87	15.06	18.50	19.80	18.10	14.46	14.04	8.13	13.34
1982	14.86	11.96	16.70	16.10	17.00	14.58	13.73	10.75	13.31
1983	10.79	9.27	13.50	12.10	14.10	11.95	10.31	7.31	12.14
1984	12.04	10.46	14.10	13.10	14.40	12.47	10.25	7.25	11.88
1985	9.93	8.09	12.80	11.20	13.40	12.40	10.25	7.25	10.61
1986	8.33	6.30	11.50	9.60	12.10	11.23	8.66	5.66	10.23
1987	8.21	6.35	10.60	9.20	11.30	10.10	8.12	5.27	10.53
1988	9.32	7.27	11.20	10.20	11.60	10.56	9.02	6.02	10.50
1989	10.88	8.50	12.50	12.10	12.70	11.68	9.10	6.10	10.64
1990	10.01	7.87	11.40	10.90	12.30	11.16	8.90	5.82	10.76
I	10.04	8.11	11.80	11.20	12.30	11.20	8.50	5.50	NA
II	10.00	8.19	11.80	11.40	12.30	11.20	9.01	6.01	NA
III	10.00	7.82	10.90	10.20	12.30	11.14	9.08	6.08	NA
IV	10.00	7.36	11.50	11.00	12.20	11.10	9.00	5.67	NA
1991	8.47	5.72	9.80	9.00	11.30	10.10	8.25	5.00	9.86
I	9.19	6.34	10.40	9.60	11.60	10.59	8.50	5.00	NA
II	8.67	5.98	9.80	9.10	11.50	10.25	8.25	5.00	NA
III	8.40	5.74	10.10	9.40	11.50	10.02	8.25	5.00	NA
IV	7.60	4.82	9.00	8.10	10.70	9.59	8.01	5.00	NA
1992	6.25	3.69	7.80	6.80	9.40	8.20	6.79	5.00	8.59
I	6.50	4.16	8.00	6.80	9.70	8.51	7.17	5.00	NA
II	6.50	3.97	8.30	7.20	9.70	8.38	7.00	5.00	NA
III	6.01	3.30	7.80	6.80	9.40	8.09	7.00	5.00	NA
IV	6.00	3.34	7.40	6.30	8.90	7.81	6.00	5.00	NA
1993	6.00	3.23	7.50	6.70	8.70	8.09	5.88	5.00	8.29
I	6.00	3.20	7.60	6.60	8.80	8.35	6.33	5.00	NA
II	6.00	3.19	7.50	6.70	8.90	8.15	6.00	5.00	NA
III	6.00	3.22	7.50	7.00	8.60	8.08	5.75	5.00	NA
IV	6.00	3.32	7.30	6.70	8.60	7.77	5.42	5.00	NA
1994	7.14	4.83	7.70	7.10	8.75	8.23	6.46	5.00	8.91
I	6.02	3.57	7.20	6.50	8.20	7.46	5.25	5.00	NA
II	6.90	4.61	7.70	6.90	8.60	8.06	6.08	5.00	NA
III	7.50	5.11	7.70	7.30	9.00	8.44	7.25	5.00	NA
IV	8.13	6.02	8.20	7.70	9.20	8.96	7.25	5.00	NA
1995	8.83	5.85	9.50	9.10	10.45	8.89	7.38	5.00	9.56
I	8.83	6.39	10.00	9.70	10.40	9.04	8.25	5.00	NA
II	9.00	5.91	9.40	8.90	10.30	8.96	7.92	5.00	NA
III	8.77	5.60	9.50	9.00	10.50	8.84	6.83	5.00	NA
IV	8.72	5.49	9.20	8.80	10.60	8.73	6.50	5.00	NA
1996	8.27	5.28	8.50	7.80	10.10	8.55	6.58	5.00	9.60
I	8.33	5.07	8.50	7.70	10.00	8.16	6.33	5.00	NA
II	8.25	5.35	8.10	7.40	10.10	8.53	6.17	5.00	NA
III	8.25	5.43	8.60	8.10	10.20	8.75	6.83	5.00	NA
IV	8.25	5.27	8.70	8.00	9.90	8.76	7.00	5.00	NA
1997P	8.44	5.39	9.25	8.69	10.03	8.92	6.73	5.00	9.38
I	8.24	5.35	9.10	8.60	9.80	8.94	6.50	5.00	NA
II	8.50	5.49	9.30	8.60	10.10	8.94	6.67	5.00	NA
III	8.50	5.34	9.40	8.90	10.10	8.92	7.00	5.00	NA
IV	8.50	5.38	9.20	8.60	10.10	8.87	6.75	5.00	NA

NA = Not Available. P = preliminary for the Farm Credit System. 1/ Auction average investment yield. 2/ New operating loans. 3/ Average on outstanding farm business debt.

Note: Because of changes in the practices of agricultural lenders over time and differences in the types of loans used to calculate each lender's interest rate series, interest rates across columns and over time are roughly rather than exactly comparable.

Appendix table 5—Interest rates on long-term loans, 1960-97

Year	U.S. Treasury bond 1/	Agricultural real estate						
		Commercial banks	Farm Credit System	Life insurance companies	FSA 2/		Average on outstanding debt 3/	Average on total farm debt 4/
					Regular	Limited resource		
				Percent				
1960	4.02	NA	NA	NA	5.00	NA	5.01	5.79
1965	4.21	NA	NA	NA	5.00	NA	5.36	5.84
1970	6.58	8.27	8.68	9.31	5.00	NA	5.88	6.73
1975	7.00	9.02	8.69	10.03	5.00	NA	6.98	7.55
1980	10.81	13.76	10.39	13.21	11.05	4.82	8.17	9.82
1981	12.87	16.75	11.27	15.42	13.00	5.50	8.91	10.95
1982	12.23	16.63	12.27	15.51	12.94	6.50	9.60	11.31
1983	10.84	13.76	11.63	12.47	10.79	5.27	9.70	10.83
1984	11.99	14.07	11.76	13.49	10.75	5.25	9.41	10.54
1985	10.75	12.96	12.24	12.61	10.75	5.25	8.73	9.57
1986	8.15	11.56	11.61	11.96	9.13	5.06	8.76	9.39
1987	8.64	11.07	11.10	10.21	8.90	5.00	8.94	9.62
1988	8.98	11.42	10.10	10.05	9.46	5.00	9.22	9.78
1989	8.59	12.08	10.93	10.47	9.46	5.00	9.52	10.02
1990	8.73	11.69	10.56	10.25	8.94	5.00	9.58	10.11
I	8.60	11.74	10.62	9.62	8.75	5.00	NA	NA
II	8.81	11.68	10.67	10.10	9.09	5.00	NA	NA
III	8.91	11.72	10.49	10.30	9.08	5.00	NA	NA
IV	8.61	11.60	10.45	10.97	9.00	5.00	NA	NA
1991	8.16	10.76	9.85	10.01	8.73	5.00	8.93	9.36
I	8.28	11.24	10.19	10.52	8.83	5.00	NA	NA
II	8.39	11.04	9.96	9.99	8.75	5.00	NA	NA
III	8.21	10.76	9.84	9.85	8.75	5.00	NA	NA
IV	7.76	10.00	9.42	9.68	8.58	5.00	NA	NA
1992	7.55	9.45	8.25	8.74	8.13	5.00	8.44	8.51
I	7.73	9.72	8.43	9.09	8.25	5.00	NA	NA
II	7.90	9.66	8.56	9.30	8.25	5.00	NA	NA
III	7.22	9.22	8.13	8.59	8.25	5.00	NA	NA
IV	7.34	9.18	7.86	7.97	7.75	5.00	NA	NA
1993	6.45	8.64	7.83	7.64	7.29	5.00	7.75	8.00
I	6.90	8.88	8.20	8.07	7.75	5.00	NA	NA
II	6.62	8.70	7.80	7.73	7.42	5.00	NA	NA
III	6.15	8.56	7.79	7.45	7.25	5.00	NA	NA
IV	6.14	8.42	7.54	7.30	6.75	5.00	NA	NA
1994	7.41	9.20	8.57	8.97	7.42	5.00	7.97	8.41
I	6.53	8.60	7.99	7.89	6.50	5.00	NA	NA
II	7.41	9.08	8.37	8.91	7.17	5.00	NA	NA
III	7.66	9.26	8.70	9.37	8.00	5.00	NA	NA
IV	8.05	9.86	9.21	9.71	8.00	5.00	NA	NA
1995	6.94	9.97	8.95	8.57	7.96	5.00	8.01	8.74
I	7.71	10.22	9.10	9.44	8.75	5.00	NA	NA
II	7.00	10.08	9.10	8.58	8.25	5.00	NA	NA
III	6.75	9.90	8.85	8.39	7.50	5.00	NA	NA
IV	6.28	9.69	8.74	7.87	7.33	5.00	NA	NA
1996	6.83	9.38	8.08	8.13	7.12	5.00	8.14	8.83
I	6.36	9.34	7.88	7.97	6.83	5.00	NA	NA
II	7.07	9.42	8.06	7.99	6.83	5.00	NA	NA
III	7.07	9.40	8.18	8.20	7.33	5.00	NA	NA
IV	6.83	9.36	8.22	8.42	7.50	5.00	NA	NA
1997P	6.67	9.33	8.28	8.09	7.23	5.00	8.00	8.66
I	6.89	9.42	8.21	8.06	7.00	5.00	NA	NA
II	7.00	9.50	8.41	8.43	7.17	5.00	NA	NA
III	6.58	9.34	8.25	7.77	7.50	5.00	NA	NA
IV	6.20	9.05	8.23	8.10	7.25	5.00	NA	NA

NA = Not Available. P = preliminary for commercial banks and the Farm Credit System. 1/ Unweighted average of rates on all outstanding bonds neither due nor callable in less than 10 years. 2/ New farm ownership loans. 3/ Average on outstanding farm business debt. 4/ Both real and nonreal estate loans.

Note: Because of changes in the practices of agricultural lenders over time and differences in the types of loans used to calculate each lender's interest rate series, interest rates across columns and over time are roughly rather than exactly comparable.

Appendix table 6—Commercial bank real estate lending, by type of bank, June 30, 1997

Bank group	Commercial banks	Real estate loans/ total loans	Nonperforming real estate loans/total real estate loans 1/	Total nonperforming loans/ total loans	Nonperforming real estate/ nonperforming loans	Weak banks 2/
	Number			*Percent*		*Number*
All banks	9,183	41.7	1.1	1.0	45.3	7
Agricultural	3,203	47.2	1.0	1.2	39.1	4
Small nonagricultural	5,347	62.8	0.8	0.9	55.5	3
Large nonagricultural	633	38.1	1.1	1.0	44.1	0
Urban	4,016	40.4	1.1	1.0	46.2	3
Rural	5,167	53.7	0.8	1.1	38.4	4

1/ Nonperforming loans are loans that are past due 90 days or more and still accruing interest plus loans in nonaccrual status. 2/ Weak banks are banks with total nonperforming loans in excess of total capital.

Source: Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix table 7—Banks reporting nonperforming loans greater than capital, 1985-97 1/

Year 2/	Agricultural banks		Nonagricultural banks		Total banks	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
1985	141	2.91	130	1.38	273	1.91
1986	158	3.36	230	2.47	388	2.77
1987	84	1.88	241	2.67	325	2.41
1988	54	1.25	238	2.76	292	2.30
1989	31	.74	181	2.14	212	1.68
1990	13	.32	130	1.58	143	1.17
1991	13	.33	107	1.35	120	1.01
1992	5	.13	55	.73	60	.53
1993	2	.05	30	.42	32	.29
1994	2	.06	17	.25	19	.18
1995	4	.12	6	.09	10	.10
1996	5	0.15	4	0.06	9	0.10
1997	4	0.12	3	0.05	7	0.08

1/ Nonperforming loans are loans that are past due 90 days or more and still accruing interest plus loans in nonaccrual status. Total capital includes total equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt. 2/ The 1997 numbers are as of June 30, all others are December 31.

Source: Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix table 8—Commercial bank failures, 1982-97 1/

Year	Agricultural banks		Nonagricultural banks		Total banks	
	Number 2/	*Percent 3/*	*Number*	*Percent*	*Number*	*Percent*
1982	10	0.19	23	0.25	33	0.23
1983	7	0.14	37	0.40	44	0.31
1984	31	0.62	47	0.50	78	0.54
1985	69	1.42	49	0.52	118	0.83
1986	66	1.41	78	0.84	144	1.03
1987	75	1.67	127	1.41	202	1.50
1988	41	0.95	180	2.09	221	1.71
1989	22	0.53	184	2.18	206	1.63
1990	18	0.44	141	1.76	159	1.30
1991	10	0.25	98	1.24	108	0.91
1992	7	0.18	93	1.23	100	0.88
1993	3	0.08	33	0.46	36	0.33
1994	0	0.00	11	0.16	11	0.11
1995	0	0.00	5	0.08	5	0.05
1996	2	0.06	3	0.05	5	0.05
1997 4/	1	0.03	0	0.00	1	0.01
Total	362	NA	1,109	NA	1,471	NA

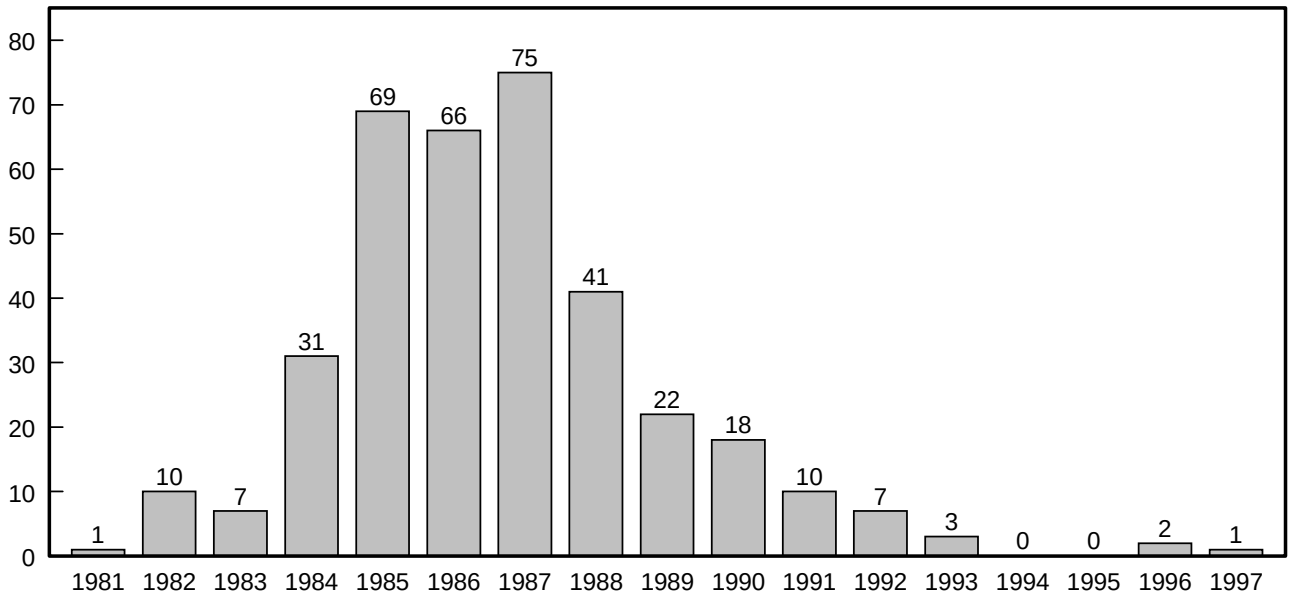
NA=Not available. 1/ Counts of failures exclude mutual savings banks, savings and loan associations, commercial banks not insured by the FDIC, and banks headquartered in U.S. possessions and territories. Failures are those declared insolvent and closed by their chartering authorities plus those granted open bank assistance by the FDIC. 2/ Agricultural bank status is based on June loan data from the year prior to the bank's failure. 3/ Failures during the year as a percentage of total banks of this type remaining at the end of the year. 4/ Percentages for 1997 use June 30, 1997, data on numbers of banks in the denominators.

Sources: Calculated from information provided by the Federal Deposit Insurance Corporation and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix figure 1

Agricultural bank failures

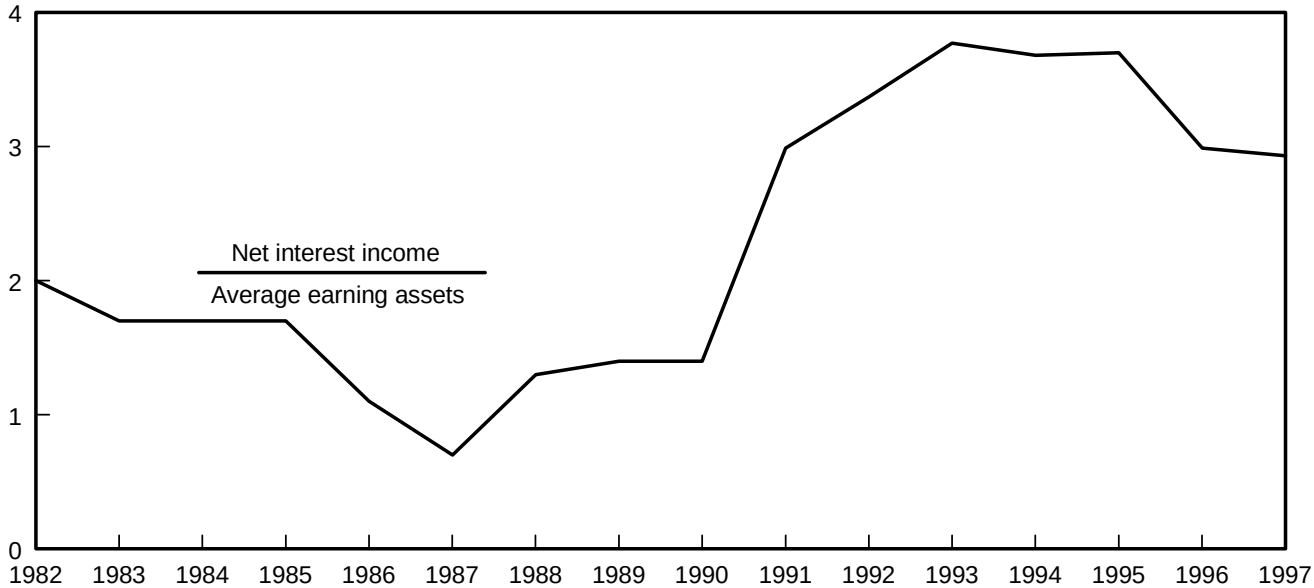
Number



Appendix figure 2

Interest margins for Farm Credit Banks, 1982-97*

Percent



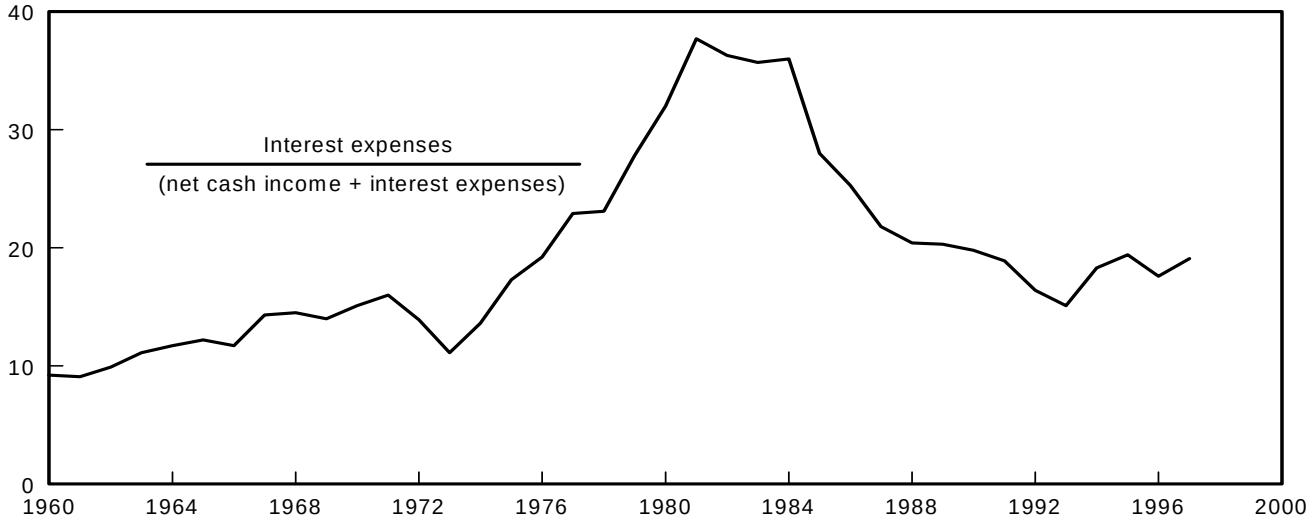
* Net interest income as a percentage of average earning assets. Average earning assets consist of gross loans plus cash and investments. Data represent combined totals for Farm Credit Banks and Associations. Data for 1997 are through September 30.

Source: "Summary Report of Condition: Performance of the Farm Credit System," Various Dates, Federal Farm Credit Banks Funding Corporation, Jersey City, NJ.

Appendix figure 3

Interest expenses as a share of net cash income

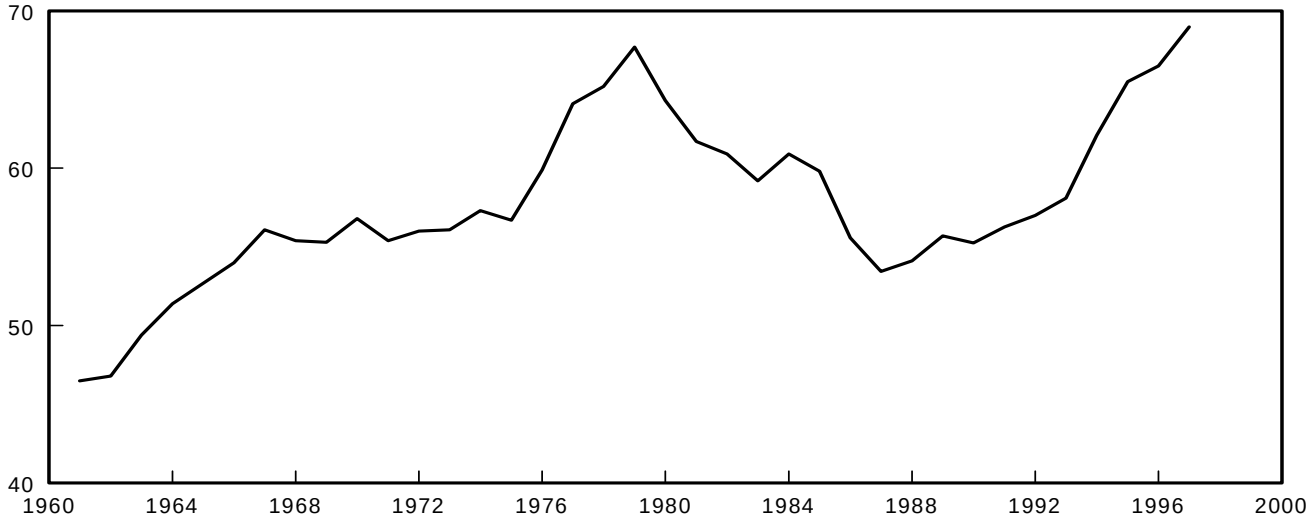
Percent



Appendix figure 4

Agricultural bank loan-to-deposit ratios, 1961-97

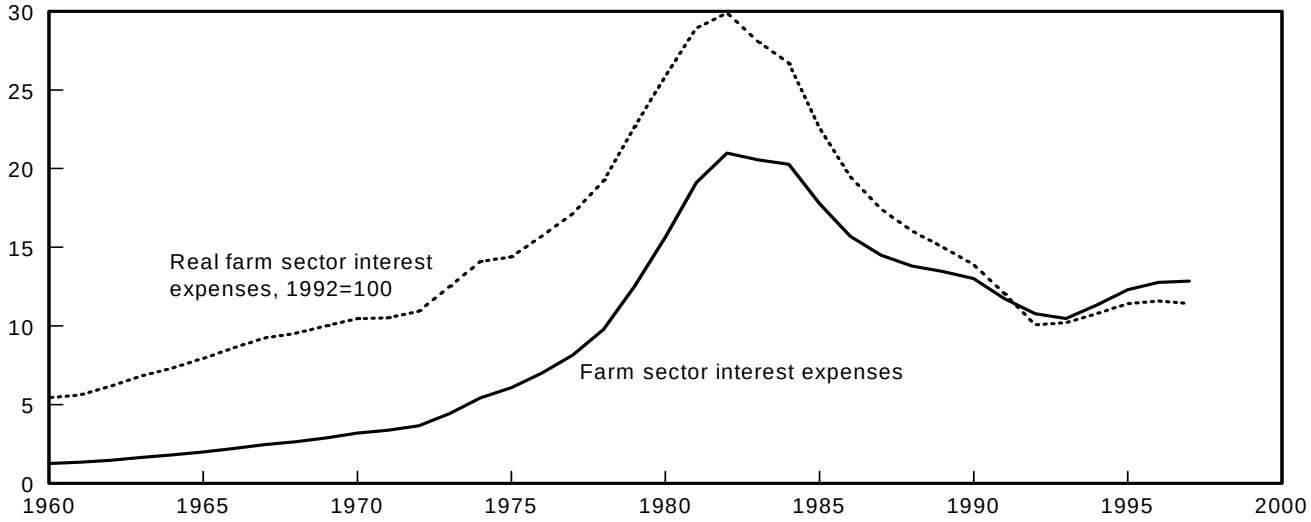
Percent



Appendix figure 5

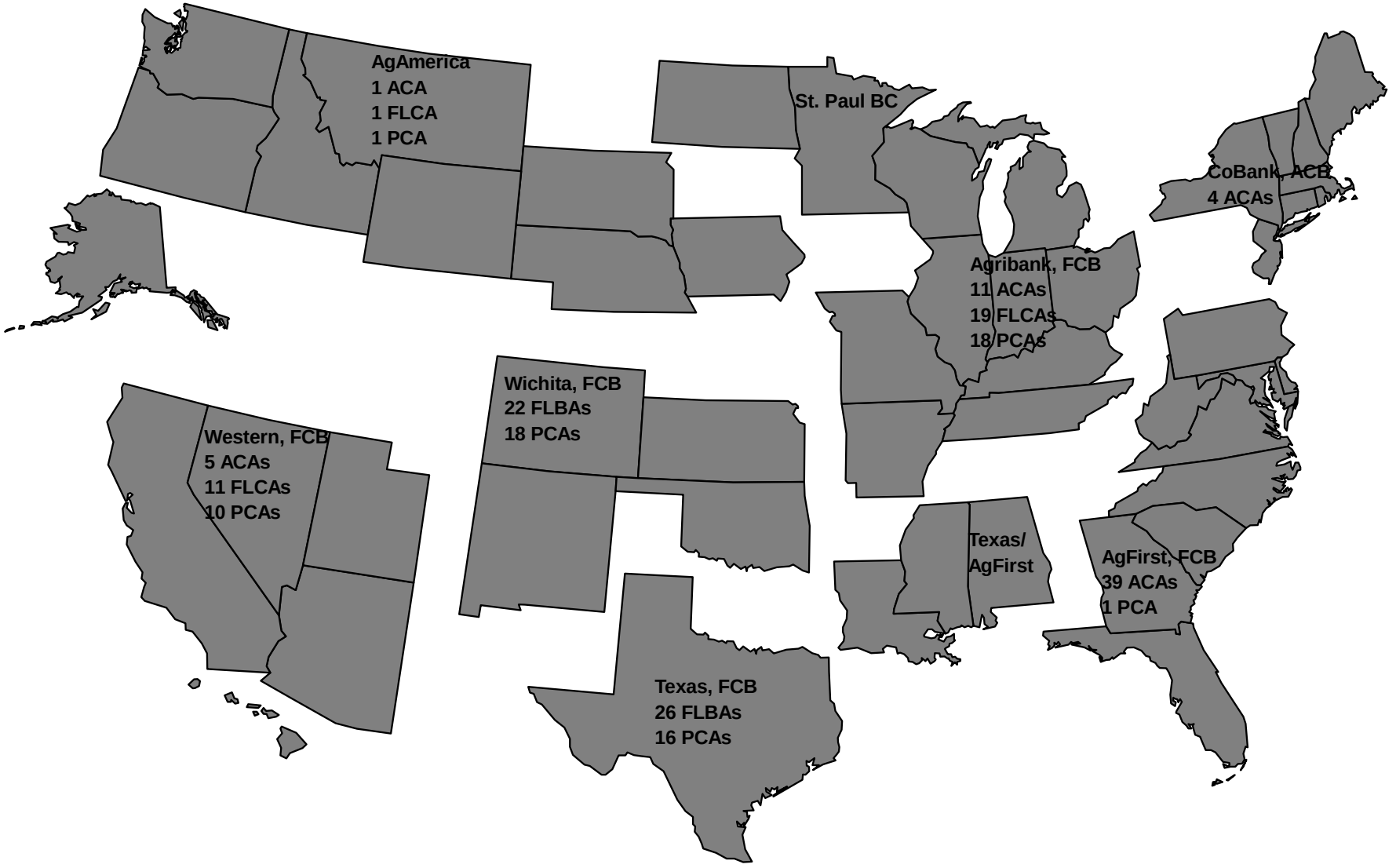
Farm sector interest expenses

$ billion



Appendix figure 6

Farm Credit System Banks and Associations, January 1, 1998*



* Associations affiliated with Texas, FCB, include 2 PCAs in New Mexico, 2 FLBAs in Alabama, 2 FLBAs in Mississippi, and 2 FLBAs and 1 PCA in Louisiana. Associations affiliated with Western, FCB, include 1 PCA in Idaho. Associations affiliated with AgFirst, FCB, include 1 ACA in Ohio, 2 ACAs in Kentucky, 1 ACA in Tennessee, and 1 PCA serving Alabama, Mississippi, and most of Louisiana. As of March 1, 1997 the Western and AgAmerica FCB's are jointly managed but remain separate legal entities.

Source: "Corporate Restructuring Report", Farm Credit Administration, January 1, 1997.